



UNITED STATES MARINE CORPS
MARINE CORPS SYSTEMS COMMAND
2200 LESTER STREET
QUANTICO, VIRGINIA 22134-5010

IN REPLY REFER TO:

5720

DON-USMC-2022-010648

8 Aug 22

SENT VIA EMAIL TO: ashley@foiaprofessionalservices.com

FOIA PROFESSIONAL SERVICES
Mrs. Ashley Wood
PO Box 852107
Mobile AL 36685

SUBJECT: FOIA DON-USMC-2022-010648

Dear Mrs. Wood:

This responds to your subject FOIA request, dated July 18, 2022, for a copy of the following documents related to contract M67854-20-C-4919:

All Solicitation documents, including attachments
All Contract award documents, including attachments
All Contract Modifications to date, including attachments.

In light of the *MCI Worldcom, Inc, v. GSA* decision, the Department of Justice Office of Information and Privacy has advised the Navy Office of the General Counsel that submitter notification in accordance with Executive Order 12,600 should be made whenever an agency receives a FOIA request for documents that contain potentially confidential information in order to obtain and consider any objections to disclosure. Therefore, in accordance with Presidential Executive Order 12,600, we allowed the submitter to review the documents and provide comment.

Pursuant to the aforementioned Executive Order 12,600 request, the submitters provided the Marine Corps Systems Command with proposed redactions pursuant to Exemptions 5 U.S.C. § 552(b)(4) and 5 U.S.C. § 552 (b)(6). These submitter redactions are identified in the enclosed documents.

FOIA Exemption 5 U.S.C. § 552(b)(4) exempts from disclosure (i) voluntarily submitted commercial or financial information provided that the submitter does not "customarily" disclose the information to the public and provided that disclosure would be likely to interfere with the continued and full availability of the information to the government, or (ii) compelled information likely to cause substantial harm to the competitive position of

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the person from whom it was obtained and likely to impact on the government's ability to obtain reliable information in the future. See *Critical Mass Energy Project v. NRC*, 975 F2d 871, 879-80 (D.C. Cir. 1992), cert. denied, 113 S.Ct.1579 (1993); *National Parks & Conservation Ass'n v. Morton*, 498 F2d 765, 766 (D.C. Cir. 1974); *Canadian Commercial Corp. v. Dept. of Air Force*, 514 F.3d 37 (D.C. Cir., 2008).

FOIA Exemption 5 U.S.C. § 552(b)(6) exempts disclosure of information that would constitute a clearly unwarranted invasion of personal privacy.

Review included consideration of the 'foreseeable harm standard', i.e., information which might technically fall within an exemption should not be withheld from a FOIA requester unless the agency can identify a foreseeable harm or legal bar to disclosure. No additional foreseeable harm has been noted.

In an effort to minimize further delay we request that you review the enclosures and identify any information that you believe was withheld improperly. MARCORSYSCOM will then determine whether the release of any requested information is proper under the FOIA and provide any additional releasable information in a "final release" letter. If we do not receive any notification from you, which specifically requests the release of any redacted information by October 30, 2022, this letter will become the final response and we will close this FOIA request.

As of August 8, 2022, three hours of search and review (currently billed at \$48 per hour) has been expended during the processing of your request. Please remit a check or money order, **payable to the Treasurer of the United States** in the amount of \$144.00 to: COMMANDER, ATTN LAW, MARCORSYSCOM, 2200 LESTER STREET, SUITE 120, QUANTICO VA 22134-5010.

In view of the above, you may consider this to be an adverse determination that may be appealed. Since you have created an account in FOIA online, you may submit an appeal directly within the web-based system. To do this, you would log in to your account, retrieve your original request, and then click on the "Create Appeal" tab in the left-hand column. The basic information from your request will be duplicated for you, and then you can type in the basis of your appeal. If you prefer to

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use regular mail, you may submit an appeal to the Judge Advocate General (Code 14), 1322 Patterson Avenue SE, Suite 3000, Washington Navy Yard, DC 20374-5066. Your appeal, if any, must be postmarked within 90 calendar days from the date of this letter and should include a copy of your initial request, a copy of this letter, and a statement indicating why you believe your appeal should be granted. I recommend that your appeal and its envelope both bear the notation, "Freedom of Information Act Appeal".

You also have the right to seek assistance and/or dispute resolution services from the Marine Corps FOIA Public Liaison, Ms. Sally Hughes, at hqmcfoia@usmc.mil or (703) 614-4008, and/or the Department of the Navy FOIA Public Liaison, Mr. Christopher Julka, at Christopher.a.julka@navy.mil or (703) 697-0031. You may also contact the Office of Government Information Services (OGIS) for assistance and/or dispute resolution at ogis@nara.gov or 1-877-684-6448. For more information online about services provided by OGIS, please visit their website at <https://ogis.archives.gov>.

Any questions concerning this matter should be directed to Mrs. Bobbie Cave at (703) 432-3934 or bobbie.cave@usmc.mil.

Sincerely,



for LISA L. BAKER
Counsel

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)					Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>							
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC			
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM System Security Plan (SSP) and Associated Plans of Action for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A		17. PRICE GROUP	
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-82247		5. CONTRACT REFERENCE SOW, Section 5.2		6. REQUIRING OFFICE USMC, MCSC			18. ESTIMATED TOTAL PRICE
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION			
8. APP CODE N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE	b. COPIES		
					Draft	Final Reg Repro	
<p>16. REMARKS</p> <p>Block 5: Contractor shall provide an SSP in accordance with NIST SP 800-171, indicating whether the Contractor has implemented the security requirements, plans to implement the security requirements, or that the requirement is not applicable. Attached to the SSP shall be a populated POA&M with all outstanding findings discovered during the self-audit describing compliance or non-compliance and plan of action(s) of the total list of security controls. This submission shall be upon award, on a quarterly basis or upon request.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Office 2200 Lester St Quantico, VA 22134</p> <p>Blocks 10-13: The Contractor shall deliver the initial SSP and POA&M (and appropriate extracts thereof) quarterly, or upon Program Management Offices request. The SSP will be reviewed for acceptance by the Government Program Management Office (PMO). The PMO shall be granted full access to validate the information in the Contractor's submission on an ad hoc basis without notice or upon replacement or rotation of the Government PM.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Any further distribution beyond what's listed will be authorized by the Program Management Office (PMO). Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal deliverable, however the Letter of Transmittal should be sent to the PCO to document delivery notification and compliance with this CDRL. Deliver all copies via electronic media where feasible, otherwise deliver in hard copy.</p>				COR	0	1	0
				PCO	0	0	1
				PEO/PfM ISSM	0	0	1
				APM	0	0	1
15. TOTAL				0	1	3	
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001 Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:32:57 -0400</small>		H. DATE 6/17/2020	I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259 Digitally signed by MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 07:32:18 -0400</small>		J. DATE 6/18/2020		

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>	
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC	

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>								
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC				
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Cyber Incident Reporting for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A				
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-XXXXXX (see Appendix 1)		5. CONTRACT REFERENCE SOW, Section 1.6.13		6. REQUIRING OFFICE USMC, MCSC				
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE Upon Award	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
						Draft	Final	
						Reg	Repro	
16. REMARKS <p>Block 4: Formatting should be in accordance with Appendix 1.</p> <p>Block 5: The Contractor shall report all Cyber Incidents or Compromise related to Controlled Unclassified Information (CUI) on the contractors system/network in accordance to DFARS clause 252.204-7012 to the Damage Assessment Office (DAMO) via the DIB-Net website (http://dibnet.dod.mil) within 72 hours.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Name 2200 Lester St Quantico, VA 22134</p> <p>Block 10-13: In addition to reporting all Cyber Incidents or Compromises as stated above, the Contractor shall also submit a Cyber Incident Damage Assessment within 72 hours event in accordance with paragraph (d)(4) of DFARS clause 252.204-7012. All information related to Cyber Incidents or Compromises, as defined in DFARS clause 252.204-7012, shall also be relayed to the Defense Cyber Crime Center [dc3.mil] within 15 calendar days of the event. Upon incident, when feasible, the hardware shall not be powered down, but segregated from the network and any Department of the Navy (DoN) CUI separated from contractor-owned information pending investigation.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Further distribution will be authorized only by the Program Management Office (PMO) Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal delivery of the Cyber Incident Report, however a Letter of Transmittal should be sent to the PCO to document formal delivery notification. Send all copies of the report via encrypted email when feasible, otherwise deliver hard copy.</p>				COR		0	1	0
				PCO		0	0	1
				PEO/PfM ISSM		0	0	1
				APfM Logistics		0	0	1
15. TOTAL				0	1	3		
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001 Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:58:47 -0400</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259 049315259 Digitally signed by MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 10:04:52 -0400</small>		J. DATE 6/18/2020		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

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(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

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Item H. Date CDRL was prepared.

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Item 6. Enter technical office responsible for ensuring adequacy of the data item.

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G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
ASPRER.ROGER.O. Digitally signed by ASPRER.ROGER.O.1278925001 1278925001 Date: 2020.06.17 17:11:25 -04'00'	6/17/2020	MAGEE.STEPHEN. Digitally signed by MAGEE.STEPHEN.JAMES.1049315 JAMES.1049315259 259 Date: 2020.06.18 07:33:35 -04'00'	6/18/2020

18. ESTIMATED TOTAL PRICE	
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CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
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D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC
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16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

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Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

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Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

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Item 3. Enter subtitle of data item for further definition of data item (optional entry).

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Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

DATA ITEM DESCRIPTION

Title: Contractor's Systems Security Plan and Associated Plans of Action to Implement NIST SP 800-171 on a Contractor's Internal Unclassified Information System

Number: DI-MGMT-82247

AMSC Number: 9992

DTIC Applicable: No

Preparing Activity: OSD-SO

Applicable Forms: None

Approval Date: 20181031

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2018-049

Use/relationship: This Data Item Description (DID) contains the data content, format, and intended use of the Contractor's system security plan (or extracts thereof), to include any associated plans of action, addressing the Contractor's internal unclassified information system(s). When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on an unclassified information system that is owned, or operated by or for, the Contractor, the Contractor shall develop, document, and periodically update a system security plan(s), to include any associated plans of action, for the Contractor's internal unclassified information system in accordance with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations. Security Requirement 3.12.4 of the NIST SP 800-171 requires that system security plans describe system boundaries, system environments of operation, how security requirements are implemented, and the relationships with or connections to other systems. Security Requirement 3.12.2 of the NIST SP 800-171 requires that plans of action describe how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's unclassified information system. The system security plan (or extracts thereof) and any associated plans of action may be used by the government as input to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or operated by or for, the Contractor (i.e., Contractor's internal unclassified information system). This DID contains the information that shall be conveyed within the system security plan and any associated plans of actions for the Contractor's internal unclassified information system. There is no prescribed format or specified level of detail for how that information is conveyed. There is no requirement for the government to approve the system security plan or any associated plans of action for the Contractor's internal unclassified information system, but the government may request that the Contractor submit the system security plan (or extracts thereof), and any associated plans of action, such that the government may review the Contractor's implementation of security requirements. When requested by the government, the submitted system security plan (or extracts thereof) and any associated plans of action for the Contractor's internal unclassified internal information system may: - Demonstrate to the government the Contractor's implementation or planned implementation of the security requirements for their internal unclassified information system, or

- Be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or

operated by or for, the Contractor (i.e., Contractor's internal unclassified information system).
Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including development dates and dates of any applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format acceptable.

3. Content: The system security plan (or extracts thereof) shall include a description of system boundaries, system environments of operation, how security requirements are implemented or how organizations plan to meet the requirements, and the relationships with or connections to other systems. Any associated plans of action shall include a description how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's information system.

3.1. Cover Page: The cover page of the system security plan (or extracts thereof) and any associated plans of action shall identify the following information:

3.1.1. Title of the document (i.e., Systems Security Plan and Associated Plans of Action for [Name of Contractor's Internal Unclassified Information System])

3.1.2. Company name

3.1.3. Data Universal Numbering Systems (DUNS) Number

3.1.4. Contract number(s) or other type of agreement

3.1.5. Facility Commercial and Government Entity (CAGE) code(s)

3.1.6. System that this System Security Plan and any associated Plans of Action addresses

3.1.7. Date of latest revision

3.1.8. All appropriate distribution and classification statements/markings

3.2. System Identification: The purpose of the system security plan shall be communicated in this section, to include a description of the function/purpose of the Contractor's internal unclassified information system(s)/network(s) that is (are) addressed in the plan.

3.3. System Environment: A detailed topology narrative and graphic shall be included that clearly depicts the Contractor's internal unclassified information system boundaries, system interconnections, and key components. This does not require depicting every device, but would include an instance of operating systems in use, virtual and physical servers (e.g., file, print, web, database, application), as well as any networked workstations, firewalls, routers, switches, copiers, printers, lab equipment, etc. If components of other systems that interconnect/interface with this system need to be shown on the diagram, denote the system boundaries by referencing the security plans or names and owners of the other system(s) in the diagram. Include or reference (e.g., to an inventory database or spreadsheet) a

complete hardware and software inventory, including make/model/version and maintenance responsibility.

3.4. Security Requirements: Describe how the Contractor addresses/will address security requirements in each of the following NIST SP 800-171 security requirement families (including basic and derived requirements) for protecting covered defense information in the Contractor's systems and organizations:

- 3.4.1. Access Control (3.1.1 – 3.1.x)
- 3.4.2. Awareness and Training (3.2.1 – 3.2.x)
- 3.4.3. Audit and Accountability (3.3.1 – 3.3.x)
- 3.4.4. Configuration Management (3.4.1 – 3.4.x)
- 3.4.5. Identification and Authentication (3.5.1 – 3.5.x)
- 3.4.6. Incident Response (3.6.1 – 3.6.x)
- 3.4.7. Maintenance (3.7.1 – 3.7.x)
- 3.4.8. Media Protection (3.8.1 – 3.8.x)
- 3.4.9. Personnel Security (3.9.1 – 3.9.x)
- 3.4.10. Physical Protection (3.10.1 – 3.10.x)
- 3.4.11. Risk Assessment (3.11.1 – 3.11.x)
- 3.4.12. Security Assessment (3.12.1 – 3.12.x)
- 3.4.13. System and Communications Protection (3.13.1 – 3.13.x)
- 3.4.14. System and Information Integrity (3.14.1 – 3.14.x)

3.5. Plans of Action: In accordance with Security Requirement 3.12.2, provide any plans of action developed to address how and when the Contractor will implement any security requirements not yet implemented, identify known deficiencies and vulnerabilities in the contractor's internal unclassified information system, how and when the Contractor will correct identified deficiencies and reduce or eliminate vulnerabilities in the Contractor's system.

End of DI-MGMT-82247

DATA ITEM DESCRIPTION**Title: Cyber Incident Reporting for a Contractor's Internal Unclassified Information System(s)****Number: DI-MGMT-XXXXX****AMSC Number: YYYY****DTIC Applicable: No****Preparing Activity: TBD****Applicable Forms: None****Approval Date: TBD****Limitation: TBD****GIDEP Applicable: No****Project Number: MGMT-XXXX-XXX**

Use/relationship: When DFARS Clause 252.204-7012 is included in a contract for which Controlled Unclassified Information (CUI) – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted during the course of executing the terms a Department of Defense (DoD) contract, cyber incidents shall be reported to the Defense Cyber Crime Center (DC3) via the DIBNet portal.

This Data Item Description (DID) contains the information that is required of the Contractor submitting the incident report to DC3.

This information, once reported, will be shared by DC3 as threat information between the DoD and DIB companies. When DC3 receives a DFARS cyber incident report, DC3 will send an unclassified encrypted email containing the submitted incident report to the government Contracting Officer point of contact identified in the submitted report to have the report placed in the contract file to document the action, with a courtesy copy to the following:

- Director, DC3/DCISE
- Director, OSD DAMO
- Director, DIB CS/IA Program Office
- Contract Program Management Office

Requirements:

1. Format: Use the format prescribed through the DIBNet Portal at <http://dibnet.dod.mil>.

- Under “DoD’s DIB Cybersecurity (CS) Program” on the right side of the page, select “Voluntary Report”.
- Since this is reporting is to satisfy a contractual requirement, select “Mandatory Incident Report”.
- Follow the “Mandatory Incident Report” wizard for the following:
 - General Information
 - I. Company Identification
 - II. Company POC Information
 - III. Contract or other Agreement
 - IV. Incident Information
 - V. Ancillary Information

End of DI-MGMT-XXXX

DATA ITEM DESCRIPTION

Title: CONTRACTOR'S RECORD OF TIER 1 LEVEL SUPPLIERS RECEIVING/ DEVELOPING COVERED DEFENSE INFORMATION

Number: DI-SCRE-82258

AMSC Number: 10008

DTIC Applicable: No

Preparing Activity: RS

Applicable Forms: None

Approval Date: 20190313

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2019-010

Use/relationship: When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on a tier 1 level supplier's internal unclassified information system. (DFARS Clause 252.204- 7012 can be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252204.htm>)

a. This Data Item Description (DID) contains the information that is required of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information. This information will be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned or operated by, or for, the contractor (i.e. contractor's internal unclassified information system). This information will:

(1) Demonstrate to the government the Contractor's ability to restrict the dissemination of covered defense information specified in, or developed under, the contract to subcontractors that execute requirements that involve the covered defense information.

(2) Demonstrate to the government the Contractor's ability to ensure that their tier 1 level suppliers safeguard covered defense information in accordance with DFARS Clause 252.204- 7012.

b. This DID contains the format, content, and intended use information for the data deliverable resulting from the work task described in the contract.

Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including approval dates and dates of applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format is acceptable.

3. Content: The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information must include a description of how the Contractor will identify and restrict the dissemination of covered defense information to subcontractors who require the covered defense information to execute the requirements in their contract and how the Contractor will ensure that their tier 1 level suppliers safeguard covered defense information with the requirements of DFARS Clause 252.204-7012. The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include the following:

3.1. Cover Page: The cover page of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include:

DI-SCRE-82258

- a. Title of the document (i.e., [Name of Contractor] Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information
- b. Contractor's Data Universal Numbering Systems (DUNS) and Commercial and Government Entity (CAGE) code numbers
- c. Contract number(s) or other type of agreement (if available)

3.2. Tier 1 Level Supplier Information (for each Tier 1 Level Supplier receiving/developing covered defense information associated with this contract)

- a. Supplier Name
- b. Supplier contract and/or agreement number (if available)
- c. Supplier Point of Contact: name, email, and phone number
- d. Date the Tier 1 Level Supplier sub contract was put in place
- e. Number of sub contracts with Tier 1 Level Supplier
- f. Supplier contract and/or agreement contains or will contain substance of DFARS Clause 252.204-7012 Y/N
- g. Supplier contract and/or agreement contains or will contain cyber security measures and/or requirements other than those identified in DFARS Clause 252.204-7012 and National Institute of Standards and Technology (NIST) Special Publication (SP) 800- 171 Rev 1: Y/N (NIST SP 800-171 can be found at <https://csrc.nist.gov/publications/detail/sp/800-171/rev-1/final>
- h. Contractor's DUNS and CAGE numbers:

- i. Supplier has conducted or will conduct a self-assessment in accordance with NIST SP 800-171A:Y/N (NIST SP 800-171A can be found at <https://csrc.nist.gov/publications/detail/sp/800-171a/final>)
- j. Supplier System Security Plan and Associated Plans of Action in accordance with NIST SP 800-171 Rev 1 Security Requirement 3.12.4 and 3.12.2
- k. List of Supplier's Tier 1 Level Suppliers receiving and/or developing covered defense information

END OF DI-SCRE-82258

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++=	Total Ports per Site
QUAN	121	52	50	237	10	6	0		0	18	950	19,944
GPON	0							49			0	0
INHZ	4	2	6							2	30	480
PKWY	0	0		15							12	720
SCPA	0	0		3							4	144
BAND	0	0	0								0	0
BRRK	0	0	0	0						0	0	0
WNYZ	0	0	0	0						0	0	0
ANNZ	2	1		3						0	10	240
Total	127	55	56	258	10	6	0	49	0	20	1006	21,528

**These 8 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS
**These 4 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS

C9300L-24P-4X-A	127
C9300L-48P-4X-A	55
C9300-48P-A	330
Total EUB Switches	512
C9300-48P-A With NM-8X	234
C9300-48P-A With No NM	96
STACK-T1-3M	24
CAB-SPWR-150CM	24

NOTE: Total switches proposed does not currently take into account the 25% growth requirement. This estimate is based on a 1 for 1 refresh and included necessary licensing to support SDA/Multi-tenancy) We will dial this number in following the VSS which will then shed light on current utilization with projected growth factored in

Host Name	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	8 Port	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
QUAN-U03-AS-21	WS-C3560V2-24TS-S	1										4 Bldg_0711_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3HJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-14	WS-C3560V2-24TS-S	1										4 Bldg_0716_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X379	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-34	WS-C3560V2-48TS-S		1									4 Bldg_1001_Floor_0001_Room_0001_Rack_0001_	FDO1719Y0XA	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-58	WS-C3560V2-24TS-S	1										4 Bldg_1002_Floor_0001_Room_0001_Rack_0001_	FDO1437X020	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-25	WS-C4506-E		5									4 Bldg_1019_Floor_0001_Rm_Telco_Rack_0001_	SPE1730008V	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_1304_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X376	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_13201_Floor_0001_Room_Closet_Rack_0001_	FDO1437X039	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-29	WS-C3560V2-48TS-E		1									4 Bldg_15_Floor_0001_Room_0001_Rack_0001_	FDO1529X1WX	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-60	WS-C3560V2-24TS-S	1										4 Bldg_15000_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NH	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-61	WS-C3560V2-24TS-S	1										4 Bldg_15001_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-62	WS-C3560V2-24TS-S	1										4 Bldg_15002_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-64	WS-C3560V2-24TS-S	1										4 Bldg_15004_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y139	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-65	WS-C3560V2-24TS-S	1										4 Bldg_15005_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y12X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-66	WS-C3560V2-24TS-S	1										4 Bldg_15006_Floor_Basement_Room_Telco1_Rack_0001	FDO1645Y13J	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-67	WS-C3560V2-24TS-S	1										4 Bldg_15007_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y13L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-68	WS-C3560V2-24TS-S	1										4 Bldg_15008_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RW	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-69	WS-C3560V2-24TS-S	1										4 Bldg_15009_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y138	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-41	WS-C3560V2-24TS-S	1										4 Bldg_17_Floor_0001_Room_0001_Rack_0001_	FDO1437V146	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-42	WS-C3560V2-24TS-S	1										2 Bldg_17_Floor_0001_Room_0002_Rack_0001_	FDO1437V2AQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-43	WS-C4503-E			2								2 Bldg_17_Floor_2_Room_219_Rack_0001_	FXS1735Q2AB	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-27	WS-C3560V2-48TS-S		1									4 Bldg_1775_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X19P	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-82	WS-C4503-E			2								2 Bldg_1775_Floor_0001_Room_telco1_Rack_0001_	SPE1735003S	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-20	WS-C3560V2-24TS-S	1										2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1437X02V	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-21	WS-C3560V2-48TS-S		1									2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1633X19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-47	WS-C4503-E			2								4 Bldg_1776_Floor_0001_Room_Telco1_Rack_0001_	SPE171500KE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-74	WS-C4503-E			2								4 Bldg_1998_Floor_0001_Room_Telco_1_Rack_0001_	SPE134300YL	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-44	WS-C3560V2-48TS-E		1									4 Bldg_1999_Floor_0001_Room_0001_Rack_0001_	FDO1529X1X5	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-01	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC1643006Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-02	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC16430072	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-04	WS-C3560V2-48TS-S		1									4 bldg_2004_Floor_1_Room_0117_Rack_0001_	FDO1633X19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-03	WS-C4506-E				3							2 Bldg_2004_Floor_1_Room_TELCO1_Rack_1_	FXS1732Q3ZC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-38	WS-C4506-E				3							4 Bldg_2006_Floor_0001_Room_108_Rack_0001_	FXS1732Q3WE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-39	WS-C4506-E				3							2 Bldg_2006_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3ZU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-40	WS-C4506-E				3							2 Bldg_2006_Floor_3_Room_308_Rack_1_	FXS1731Q4AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-06	WS-C3560V2-48TS-S		1									2 Bldg_2006_Floor_Basement_Room_B014_Rack_1_	FDO1633X1BR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-21	WS-C4506-E				3							4 Bldg_2008_Floor_0001_Room_Telco1_Rack_0003_	FXS1732Q3CN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-19	WS-C4506-E				3							2 Bldg_2008_Floor_0003_Room_0003_Rack_0001_	SPE173000A4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-20	WS-C4506-E				3							2 Bldg_2008_Floor_2_Room_231_Rack_2_	SPE173000C9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-07	WS-C4506-E				3							4 Bldg_2009_Floor_0002_Room_0002_Rack_0001_	FXS1732Q406	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-08	WS-C4506-E				3							2 Bldg_2009_Floor_3_Room_332_Rack_1_	SPE172801YN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-31	WS-C4506-E				3							4 Bldg_2010_Floor_0002_Rm_211_Rack_0001_	SPE17300087	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-32	WS-C4506-E											4 Bldg_2011_Floor_0001_Rm_116_Rack_0002_	SPE17300096	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-21	WS-C3560V2-48TS-E		1									4 Bldg_2013_Floor_0001_Room_0001_Rack_0001_	FDO1529X1XV	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-20	WS-C3560V2-24TS-S	1										2 Bldg_2013_Floor_1_Room_BreakRm_Rack_1_	FDO1437V110	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-22	WS-C3560V2-48TS-E		1									4 Bldg_2014_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1XG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-70	WS-C3560V2-48PS-S		1									4 Bldg_2015_Floor_0001_Rm_Telco1_Rack_0001_	FDO1644Y2C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-09	WS-C3560V2-48TS-S		1									4 Bldg_2032_Floor_0001_Room_000_Rack_001_	FDO1723Y2D5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-26	WS-C4506-E				3							2 Bldg_2032_Floor_0001_Room_Telco1_Rack_0001_	SPE173000B5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-24	WS-C3560V2-48TS-S		1									2 Bldg_2032_Floor_0001_Room_Telco2_Rack_0001_	FDO1633X1A2	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-01	WS-C4506-E				3							4 Bldg_2034_Floor_0001_Room_Telco1_Rack_0001_	SPE1728020L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-02	WS-C4506-E				3							2 Bldg_2034_Floor_1_Rm_TelcoSouth_Rack_3_	SPE17280208	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-10	WS-C3560V2-48TS-S		1									4 Bldg_2043_Floor_1_Rm_124_Rack_1_	FDO1636Y15K	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-11	WS-C4503-E			2								2 Bldg_2043_Floor_1_Room_EMB_Rack_1_	SPE1343002Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-12	WS-C4506-E				3							2 Bldg_2043_Floor_1_Room_Telco_1_Rack_0002_	FXS1731Q4AR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_2045_Floor_0001_Room_0001_Rack_0001_	FDO1437V125	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-17	WS-C4506-E				3							4 Bldg_2048_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3W0	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-03	WS-C4506-E				3							4 Bldg_2076_Floor_0001_Room_0001_Rack_0001_	FXS1732Q411	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-02	WS-C4506-E				3							2 Bldg_2076_Floor_0001_Room_0006_Rack_0001_	FXS1732Q410	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-01	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PK	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-02	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-04	WS-C4506-E				3							2 Bldg_2076_Floor_0002_Room_0002_Rack_0001_	FXS1732Q3ZG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-35	WS-C3560V2-48TS-E		1									4 Bldg_2077_Floor_0002_Room_0002_Rack_0001_	FDO1529X1X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-37	WS-C3560V2-48TS-E		1									2 Bldg_2077_Floor_0002_Room_0210_Rack_0001_	FDO1529X263	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-36	WS-C4506-E				3							2 Bldg_2077_Floor_Basement_Rm_B28_Rack_0001_	FXS1732Q3WC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-17	WS-C4506-E				3							4 Bldg_2079_Floor_1_Rm_138_Rack_1_	FXS1732Q412	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-18	WS-C4506-E				3							2 Bldg_2079_Floor_2_Rm_226_Rack_1_	SPE17280245	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-81	WS-C3560V2-24TS-S	1										4 bldg_2080_Floor_1_Room_0001_Rack_0001_	FDO1437V291	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-32	WS-C4503-E			2								4 Bldg_2082_Floor_0001_Room_115_Rack_0001_	SPE171500KJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-26	WS-C3750G-48PS-S		1									2 Bldg_2082_Floor_0001_Room_B12_Rack_0001_	FOC1109Y2F1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-40	WS-C3750X-48P-S			2								4 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1719H3KR,FDO1713Z0RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-43	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1720R1HM,FDO1608K119	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-41	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0002_Room_Telco2_Rack_0001_	FDO1720R1WE,FDO1719H3L1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-42	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0003_Room_Telco3_Rack_0001_	FDO1719H3KB,FDO1722P0HQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-07	WS-C3560V2-48TS-E		1									4 Bldg_2100_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WP	NCR QUAN Nodes	NCR	QUAN

QUAN-U04-AS-08	WS-C3560V2-48TS-S		1							2	Bldg_2100_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X190	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-43	WS-C4503-E			2						4	Bldg_2105_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-27	WS-C3560V2-24TS-S	1								2	Bldg_2105_Floor_0002_Room_Telco2_Rack_0001_	FDO1437V10K	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-49	WS-C3560V2-24TS-S	1								4	Bldg_2105T_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-12	WS-C3560V2-24TS-S	1								4	Bldg_2106_Floor_0001_Room_0164_Rack_1_	FDO1438X004	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-51	WS-C3560V2-24TS-S	1								4	Bldg_2110_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y191	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-11	WS-C3560V2-24TS-S	1								4	Bldg_2117_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X36H	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-15	WS-C3560V2-24TS-S	1								4	Bldg_2118_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V11J	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-01	WS-C4506-E				3					4	Bldg_2121_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3W6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-60	WS-C3560V2-24TS-S	1								4	Bldg_2122_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y13Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-61	WS-C3560V2-24TS-S	1								4	Bldg_2123_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y121	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-44	WS-C3560V2-24TS-S	1								4	Bldg_2124_Floor_0001_Room_Teco1_Rack_0001_	FDO1438X05W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-84	WS-C3560V2-24TS-S	1								4	bldg_2132_Floor_1_Room_0119_Rack_0001	FDO1437X3D5	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_2177_Floor_1_Room_1_Rack_Telco1_	FDO1645Y13Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-08	WS-C3560V2-24TS-S	1								4	Bldg_2179_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X01L	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_2187_Floor_0001_Room_Teco2_Rack_0001_	FDO1437X01Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-03	WS-C3560V2-24TS-S	1								2	Bldg_2187_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X3LL	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-22	WS-C3560V2-24TS-S	1								4	Bldg_2189_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y14Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-01	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0001_	SAL1633KRTA	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-02	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0004_	SAL17236L1N	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-07	WS-C4506-E				3					4	Bldg_2189N_Floor_0001_Room_Telco1_Rack_0001_	SPE173000DQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-07	WS-C4506-E			2						4	Bldg_2200_Floor_0001_Room_153A_Rack_0001_	FXS1732Q408	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-06	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_B-wing_Rack_0001_	SPE1343012Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-05	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_C-wing_Rack_0001_	SPE1343300VS	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-02	WS-C4506-E				3					2	Bldg_2200_Floor_0001_Room_Telco1_Rack_0003_	FOX1338GZZK	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-08	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_207_Rack_0001_	FOX1338GWXX	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-09	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_229_Rack_0001_	FXS1732Q3Z1	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-10	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_252_Rack_0001_	FOX1338GZL	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-03	WS-C4503-E		2							2	Bldg_2200_Floor_000B_Room_B20B_Rack_0002_	SPE1343012R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-28	WS-C6506-E		2							2	Bldg_2200_Floor_000B_Room_B65_Rack_0001_	SAL172264NQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-04	WS-C4503-E		2							2	Bldg_2200_Floor_Basement_Room_A-wing_Rack_0001_	SPE1340004Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-12	WS-C4506-E				3					4	Bldg_2201A_Floor_0001_Room_110_Rack_0001_	FXS1732Q3CV	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-01	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172369MW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-02	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172264PD	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-20	WS-C4506-E				3					4	Bldg_2202_Floor_0001_Room_105_Rack_0001_	FXS1732Q3W5	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-22	WS-C4506-E				3					2	Bldg_2202_Floor_0002_Room_0210_Rack_0001_	SPE173000BF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-18	WS-C4506-E				3					2	Bldg_2202_Floor_000B_Room_0001_Rack_0001_	FXS1732Q3VQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-13	WS-C4506-E				3					4	Bldg_2203_Floor_1_Room_Telco1_Rack_1_	FOX1335GRHE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-32	WS-C4503-E		2							4	Bldg_2203A_Floor_0001_Room_0001_Rack_0001_	SPE171500KF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-26	WS-C3560V2-48TS-E		1							4	Bldg_2204_Floor_0001_Room_114_Rack_0001_	FDO1529X1WQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-24	WS-C4503-E		2							2	Bldg_2204_Floor_Basement_Room_B17_Rack_0001_	FXS1735Q2AF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-16	WS-C4506-E				3					4	Bldg_2207_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3WH	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-15	WS-C3560V2-48TS-E		1							2	Bldg_2207_Floor_0002_Room_0002_Rack_0002_	FDO1529X1XU	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-14	WS-C4506-E				3					2	Bldg_2207_Floor_000B_Room_B05_Rack_0001_	FOX1338GZE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-34	WS-C4503-E		2							4	Bldg_2208_Floor_1_Room_Telco1_Rack_1_	FXS1733Q0HZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-31	WS-C4506-E				3					4	Bldg_2209T_Floor_1_Room_Telco1_Rack_1_	SPE1728024H	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-29	WS-C4506-E				3					4	Bldg_2210_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-30	WS-C4506-E				3					2	Bldg_2210_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3WW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_2247_Floor_0001_Room_0001_Rack_0001_	FDO1438X02R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-21	WS-C3560V2-24TS-S	1								4	Bldg_2248_Floor_0001_Room_0001_Rack_0001_	FDO1437X02Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-33	WS-C3560V2-24TS-S	1								4	Bldg_2249_Floor_0001_Room_0001_Rack_0001_	FDO1437V12W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-72	WS-C4506-E				3					4	Bldg_2300_Floor_1_Room_Telco1_Rack_1_	FXS1732Q3XD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-71	WS-C4506-E				3					4	Bldg_2300A_Floor_1_Room_Telco1_Rack_1_	FXS1732Q0DN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-73	WS-C4506-E				3					4	Bldg_2300B_Floor_1_Room_Telco1_Rack_1_	SPE173000C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-10	WS-C3560V2-24TS-S	1								4	Bldg_2321_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-64	WS-C3560V2-24TS-S	1								4	Bldg_23402_Floor_1_Room_1_Rack_1_	FDO1645Y13A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-41	WS-C3560V2-24TS-S	1								4	Bldg_24004_Floor_1_Room_Telco_Rack_1_	FDO1438X01H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-58	WS-C3560V2-24TS-S	1								4	Bldg_24005_Floor_1_Room_0001_Rack_1_	FDO1437X3GR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_24006_Floor_0001_Room_telco10_Rack_0001_	FDO1437V0YJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-75	WS-C3560V2-24TS-S	1								4	Bldg_24008_Floor_1_Room_0001_Rack_1_	FDO1437X3GZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-10	WS-C4506-E				3					4	Bldg_24009_Floor_0001_Room_0152_Rack_0001_	FXS1732Q3WY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-42	WS-C3560V2-48TS-S		1							4	Bldg_24015_Floor_1_Room_Telco1_Rack_1_	FDO1633X18D	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-44	WS-C3560V2-48TS-S		1							4	Bldg_24017_Floor_0001_Room_telco1_Rack_0001_	FDO1633X1B0	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-47	WS-C3560V2-24TS-S	1								4	Bldg_24018_Floor_0001_Room_0001_Rack_0001_	FDO1436X3LR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-28	WS-C3560V2-24TS-S	1								4	Bldg_24114_Floor_0001_Room_0000_Rack_0000_	FDO1704Y2SS	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-01	WS-C3560V2-24TS-S	1								4	Bldg_24142_Floor_0001_Room_Office_Rack_0001_	FDO1437V12H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_24144_Floor_0001_Room_0001_Rack_0001_	FDO1436X22U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-30	WS-C3560V2-48TS-S		1							4	Bldg_24157_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-34	WS-C4506-E				3					4	Bldg_24164_Floor_0001_Room_0169_Rack_0001_	FXS1646Q40C	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-11	WS-C4506-E				3					2	Bldg_24164_Floor_0001_Room_117_Rack_0001_	SPE17300085	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-35	WS-C4506-E				3					2	Bldg_24164_Floor_0002_Room_0229_Rack_0001_	FXS1647Q04E	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-07	WS-C3560V2-24TS-S	1								4	Bldg_24180_Floor_0001_Room_0001_Rack_0001_	FDO1436X3KV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-09	WS-C3560V2-24TS-S	1								4	Bldg_24191_Floor_0001_Room_0001_Rack_0001_	FDO1438X018	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-50	WS-C3560V2-48TS-S		1							4	Bldg_24192_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X183	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-49	WS-C3560V2-48TS-S		1							2	Bldg_24192_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19L	NCR QUAN Nodes	NCR	QUAN

QUAN-U07-AS-48	WS-C3560V2-48TS-S		1							4	Bldg_24193_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-26	WS-C3560V2-24TS-S	1								4	Bldg_24193A_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-43	WS-C3560V2-48TS-S		1							4	Bldg_24194_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-03	WS-C3560V2-24TS-S	1								4	Bldg_24195_Floor_0001_Room_0001_Rack_0001_	FDO1645Y199	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-36	WS-C3560V2-24TS-S	1								4	Bldg_24196_Floor_1_Room_Telco1_Rack_1_	FDO1437V28G	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-51	WS-C3560V2-24TS-S	1								4	Bldg_24197_Floor_0001_Room_telco1_Rack_0001_	FDO1437X3DK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-79	WS-C3560V2-48TS-E		1							4	bldg_24200_Floor_1_Room_0149_Rack_0001	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-08	WS-C4506-E				3					4	Bldg_24202_Floor_1_Room_143_Rack_1_	FXS1731Q4AV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-38	WS-C3560V2-24TS-S	1								4	Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y12V	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-01	WS-C6506-E							1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL172369MY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-02	WS-C6506-E							1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL1718474L	NCR QUAN Nodes	NCR	QUAN
DR								1			Bldg_26100				
DR								1			Bldg_26100				
QUAN-U07-AS-61	WS-C4506-E				3					4	Bldg_26100_Floor_0001_Room_Telco1_Rack_0001_	SPE173000D1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-62	WS-C3750X-24T-S	1								2	Bldg_26100_Floor_1_Room_RWC1_Rack_1_	FDO1746Z0JL	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-63	WS-C3750X-24T-S	1								2	Bldg_26100_Floor_1_Room_RWC2_Rack_1_	FDO1745P23K	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-71	WS-C3560V2-24TS-S	1								4	Bldg_26101_Floor_0001_Room_0000_Rack_0001	FDO1710Y0N2	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-68	WS-C3750X-24T-S	1								4	Bldg_26133_Floor_1_Room_Telco1_Rack_1_	FDO1746H070	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-70	WS-C3560V2-24TS-S	1								4	Bldg_26143_Floor_1_Room_Telco1_Rack_1_	FDO1437X3DV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-69	WS-C3560V2-24TS-S	1								4	Bldg_26144_Floor_1_Room_Telco1_Rack_1_	FDO1438X05A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-65	WS-C3750X-24T-S	1								4	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746H0ME	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-66	WS-C3750X-24T-S	1								2	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746P0Y9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-67	WS-C3750X-24T-S	1								4	Bldg_2650_Floor_1_Room_1_Rack_1_	FDO1746H0MK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_27001_Floor_0001_Room_0001_Rack_0001_	FDO1437V0W4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-15	WS-C3560V2-24TS-S	1								4	Bldg_27007_Floor_0001_Room_0001_Rack_0001_	FDO1438X03L	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-52	WS-C3560G-24TS-S	1								4	Bldg_27028T_Floor_0001_Room_Telco1_Rack_01_	FOC1623V0TW	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-18	WS-C3560V2-24TS-S	1								4	Bldg_27046_Floor_0001_Room_0001_Rack_0001_	FDO1437V0ZB	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-25	WS-C3560V2-24TS-S	1								4	Bldg_27067_Floor_0001_Room_0001_Rack_0001_	FDO1438X02T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-29	WS-C3560V2-24TS-S	1								4	Bldg_27200_Floor_1_Room_Telco1_Rack_1_	FDO1437X380	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-22	WS-C3560V2-24TS-S	1								4	Bldg_27210_Floor_0001_Room_604_Rack_0001_	FDO1437V0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-21	WS-C4506-E				3					4	Bldg_27211_Floor_0001_Room_S4_Rack_0001_	SPE173000B9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-24	WS-C3560V2-24TS-S	1								4	Bldg_27231_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X015	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-20	WS-C3560V2-48TS-S		1							4	Bldg_27241_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X185	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-39	WS-C3560V2-48TS-E		1							4	Bldg_27250_Floor_0001_Rm_Telco1_Rack_0001_	FDO1529X1XH	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-45	WS-C3560V2-24TS-S	1								2	Bldg_27250_Floor_0001_Room_telco1_Rack_0001_	FDO1437V22T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-46	WS-C3560V2-24TS-S	1								4	Bldg_27251_Floor_0001_Room_0001_Rack_0001_	FDO1437V0X3	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-23	WS-C3560V2-24TS-S	1								4	Bldg_27270_Floor_0001_Room_0001_Rack_0001_	FDO1437V272	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-32	WS-C3560V2-48TS-E		1							4	Bldg_27275_Floor_2_Room_206_Rack_2_	FDO1528X0CG	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-12	WS-C3560V2-48TS-S		1							4	Bldg_27277_Floor_2_Room_206_Rack_2_	FDO1633X1AD	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-40	WS-C3560V2-24TS-S	1								4	Bldg_27279_Floor_0001_Room_telco10_Rack_0001_	FDO1438X036	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-17	WS-C4506-E				3					4	Bldg_27281_Floor_0001_Rm_Telco1_Rack_0001_	FXS1732Q3EE	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-14	WS-C6506-E				3					4	Bldg_27282_Floor_0001_Room_0001_Rack_0001_	SAL172369MS	NCR QUAN Nodes	NCR	QUAN
DR								1			Bldg_27282				
DR								1			Bldg_27282				
QUAN-U07-AS-27	WS-C3560V2-48TS-E		1							4	Bldg_27290TX_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X1P5	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-13	WS-C3560V2-24TS-S	1								4	Bldg_27400_Floor_0001_Room_0001_Rack_0001_	FDO1437X356	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-56	WS-C4506-E				3					4	Bldg_27402_Floor_0001_Room_0001_Rack_0008	FOX1614GXY4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-57	WS-C4506-E				3					2	Bldg_27402_Floor_0001_Room_0001_Rack_0008	SPE154901XJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-55	WS-C3560V2-48TS-S		1							2	Bldg_27402_Floor_0001_Room_Telco1_Rack_0001	FDO1633X1AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-05	WS-C3850-48U					6				4	BLDG_2741_FLR_02_RM_209_RN2_U30	FCW1951DOBJ,FCW1951COEY,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U07-AS-54	WS-C3560V2-24TS-S	De-Scope 1							De-Scope 4	4	Bldg_27410_Floor_0001_Room_135_Rack_0001_	FDO1437V12M	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-01	WS-C3850-48U						De-Scope 7		De-Scope 2		BLDG_27410_FLR_01_RM_129_RN2_U12	FOC1951X0S4,FOC1951U0R1,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-06	WS-C3850-48U		De-Scope 1						De-Scope 2		BLDG_27410_FLR_01_RM_135_R1_U39	FCW1951D10R	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-03	WS-C3850-48U						De-Scope 7		De-Scope 2		BLDG_27410_FLR_01_RM_141_RN3_U26B	FOC1938X1K7,FCW1941C01R,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-02	WS-C3850-48U						De-Scope 6		De-Scope 2		BLDG_27410_FLR_01_RM_145_RACK_RN1_U17	FOC1951U0QV,FOC1951U0G4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-02	WS-C3560V2-24TS-S	1								4	Bldg_28000_Floor_1_Room_Telco1_Rack_1_	FDO1645Y18M	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-25	WS-C3560V2-24TS-S	1								4	Bldg_28009_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-30	WS-C3560V2-24TS-S	1								4	Bldg_3015_Floor_0001_Room_0001_Rack_0001	FDO1645Y19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-31	WS-C3560V2-24TS-S	1								4	Bldg_3015A_Floor_0001_Room_0001_Rack_0001	FDO1437X00W	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-55	WS-C3560V2-48TS-S		1							4	Bldg_3017_Floor_1_Room_Telco1_Rack_1_	FDO1738Y2P1	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-52	WS-C3560V2-48TS-S		1							4	Bldg_3019_Floor_0001_Room_Telco1_Rack_0001	FDO1633X19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-30	WS-C4506-E				3					4	Bldg_3025_Floor_0001_Rm_Telco1_Rack_0001_	SPE1728024S	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-13	WS-C3560V2-24TS-S	1								4	Bldg_3032_Floor_0001_Room_Telco1_Rack_0001	FDO1437X3JT	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-24	WS-C3560V2-24TS-S	1								4	Bldg_3045_Floor_0001_Room_0001_Rack_0001	FDO1437X02W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-22	WS-C3560V2-48TS-S		1							4	Bldg_3049_Floor_0001_Room_#0001_Rack_0001	FDO1709Y1TR	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-11	WS-C3560V2-24TS-S	1								4	Bldg_3065_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XT	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-44	WS-C3560V2-24TS-S	1								4	Bldg_3076_Floor_0001_Room_0001_Rack_0001	FDO1437V231	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-36	WS-C3560V2-24TS-S	1								4	Bldg_3077_Floor_0001_Room_0001_Rack_0001	FDO1645Y1AE	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-37	WS-C4503-E				2					2	Bldg_3077_Floor_0002_Room_LAN1_Rack_0001	FXS1733Q0HG	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-11	WS-C4506-E				3					4	Bldg_3078_Floor_0001_Room_115_Rack_0001	FXS1732Q0DL	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-08	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0Z2	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-09	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-18	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0ZJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-10	WS-C3560V2-24TS-S	1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1438X022	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-06	WS-C3750G-24TS-E1U	1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FOC1006Z3K2	NCR QUAN Nodes	NCR	QUAN

QUAN-U03-AS-35	WS-C3560V2-48TS-S			1							4	Bldg_3081T_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X19W	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-39	WS-C3560V2-24TS-S	1									4	Bldg_3081T2_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-25	WS-C3560V2-48TS-E			1							4	Bldg_3083_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WT	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-27	WS-C4503-E				2						4	Bldg_3083A_Floor_1_Room_102_Rack_1_	FXS1733Q0HE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-11	WS-C4506-E										4	Bldg_3086_Floor_0001_Room_COMPRM_Rack_0001_	SPE173000C8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-35	WS-C4506-E										4	Bldg_3087_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3XM	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-19	WS-C3560V2-24TS-S	1									4	Bldg_3088_Floor_01_Room_Telco_01_B-Wing_Rack_01_	FDO1437V0Y5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-48	WS-C3560V2-24TS-S	1									4	Bldg_3089_Floor_0001_Room_0001_Rack_0001_	FDO1437V0Y3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-04	WS-C3560V2-24TS-S	1									4	Bldg_3090_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-20	WS-C4503-E				2						4	Bldg_3094_Floor_0001_Room_Telco1_Rack_0001_	FXS1733Q0J8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-15	WS-C3560V2-48TS-S			1							4	Bldg_3094T_Floor_1_Room_Telco1_Rack_1_	FDO1633X1A9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-45	WS-C3560V2-24TS-S	1									4	Bldg_3095_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V0XF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-03	WS-C4503-E				2						4	Bldg_3097_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-14	WS-C3560G-24TS-S	1									4	Bldg_3098_Floor_0001_Room_105_BreakFix	FOC1623V0UF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-44	WS-C4506-E										2	Bldg_3098_Floor_0001_Room_Telco1_Rack_0001_	SPE172801Z0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-53	WS-C4503-E				2						2	Bldg_3098_Floor_0002_Room_Telco2_Rack_0001_	FXS1735Q2E8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-16	WS-C3560G-24PS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3M8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-17	WS-C3560G-24PS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3JW	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-15	WS-C3560G-24TS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1431Y4V9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-01	WS-C3560V2-24TS-S	1									4	Bldg_3099_Floor_01_Room_Telco_01_Rack_01_	FDO1437X02G	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-11	WS-C3560V2-48TS-S			1							4	Bldg_3100_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-02	WS-C3560V2-24TS-S	1									4	Bldg_3101_Floor_1_Room_Telco1_Rack_1_	FDO1710Y0PC	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-07	WS-C3560V2-24TS-S	1									4	Bldg_3169_Floor_0001_Room_0001_Rack_0001_	FDO1437V0XY	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-05	WS-C4506-E										4	Bldg_3186_Floor_1_Room_NB33_Rack_Telco1_	SPE172801YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-02	WS-C3560V2-24TS-S	1									4	Bldg_3202_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XE	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-09	WS-C3560V2-24TS-S	1									4	Bldg_3209_Floor_1_Room_Telco_Rack_1_	FDO1704Y2X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-16	WS-C3560V2-48TS-S			1							4	Bldg_3228_Floor_2_Room_Telco_1_Rack_1_	FDO1633X19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-50	WS-C4506-E										4	Bldg_3229_Floor_0001_Room_StagingRM_Rack_0004_	FOX1338GWWK	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-16	WS-C3560V2-24TS-S	1									4	Bldg_3230_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V24U	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-35	WS-C3560V2-24TS-S	1									4	Bldg_3232_Floor_1_Room_Telco_1_Rack_0001_	FDO1645Y14W	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-17	WS-C3560V2-24TS-S	1									4	Bldg_3240_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X38R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-39	WS-C4506-E										4	Bldg_3250_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-38	WS-C4506-E										2	Bldg_3250_Floor_Basement_Room_CommCtr_Rack_0001_	FXS1732Q416	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-54	WS-C4503-E				2						4	Bldg_3250TRAILER_Floor_01_Room_01_Rack_01_	FXS1718Q1BJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-32	WS-C4506-E										4	Bldg_3252_Floor_0001_Room_Telco1_Rack_0001_	SPE1730008T	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-28	WS-C3560V2-24TS-S	1									2	Bldg_3252_Floor_1_Room_Shop51_Rack_1_	FDO1720Y2HA	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-13	WS-C4506-E										4	Bldg_3255_Floor_0001_Room_0001_Rack_0001_	SPE1730008W	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-24	WS-C3560G-24TS-E	1									2	Bldg_3255_Floor_0001_Room_0001_Rack_0003_	FOC1426W0P4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1630HP53	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-02	WS-C6506-E											Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1633KRTE	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U03-AS-01	WS-C4506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FOX1332G2VD	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-01	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0010_	SAL17173LBA	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-05	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1633KRT4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-06	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1630HP5A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-07	WS-C6509-E							5			2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7H	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-08	WS-C6509-E							5			2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-02	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_SF_Rack_0010_	SAL172264PL	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-AS-05	WS-C4506-E										2	Bldg_3255_Floor_0002_Room_Telco1_Rack_0001_	FXS1732Q3W3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-06	WS-C4503-E				2						2	Bldg_3255_Floor_001_Room_ServerRm_Rack_163_	SPE151601B7	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-22	WS-C6506-E										2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1633KRTK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-23	WS-C6506-E										2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1630HP58	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-03	WS-C6506-E										2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRTE	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-04	WS-C6506-E										2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRT6	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-DR-01	WS-C6506-E									1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1633KRTJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-DR-02	WS-C6506-E									1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1630HP4Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-07	WS-C3850-48U										2	BLDG_3255_FLR_01_RM_102_RN3_U18	FCW1951COE6,FCW1951DOLB	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-18	WS-C4506-E										De-Scope 4	Bldg_3280_Floor_0001_Room_telco1_Rack_0001_	SPE173000D9	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-19	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0001_Room_Telco1_Rack_0001_	SPE173000EC	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-06	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0002_Rm_2East_Rack_0001_	FOX1338HAEJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-03	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0003_Rm_3West_Rack_0001_	FOX1338GWXD	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-07	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0003_Rm_SF_Rack_0001_	FOX1338GZZJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-10	WS-C4503-E										De-Scope 2	Bldg_3280_Floor_0003_Room_SF_Rack_0001_	FXS1735Q2EY	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-04	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0004_Rm_4West_Rack_0001_	FOX1338GZY8	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-05	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0005_Rm_5West_Rack_0001_	FOX1338GWXZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-01	WS-C4503-E															

QUAN-U05-AS-16	WS-C4506-E				De-Scope 3						De-Scope 2	Bldg_3300_Floor_3_Rm_322_Rack_0001_	SPE173000BY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-90	WS-C3560V2-24TS-S	1										4 Bldg_3313_Floor_01_Room_Teco#_Rack_1_	FDO1437V27K	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_3400_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03J	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-29	WS-C3560V2-24TS-S	1										4 Bldg_3500_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03R	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-14	WS-C4506-E				3							4 Bldg_5001_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3D9	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-13	WS-C4506-E				3							4 Bldg_5002_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_505_Floor_0001_Room_0002_Rack_0001_	FDO1437V11T	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-54	WS-C4503-E			2								4 Bldg_5170_Floor_1_Rm_Telco1_Rack_0001_	FXS1735Q2DD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-52	WS-C3560V2-24TS-S	1										4 Bldg_5172_Floor_0001_Room_0001_Rack_0001_	FDO1643Y2R8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-27	WS-C3560V2-24TS-S	1										4 bldg_658_Floor_1_Room_0001_Rack_0001	FDO1437X02B	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-28	WS-C3560V2-24TS-S	1										4 bldg_660_Floor_1_Room_0001_Rack_0001	FDO1437V26X	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-19	WS-C3560V2-24TS-S	1										4 Bldg_69_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V13V	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_7_Floor_0001_Room_0001_Rack_0001_	FDO1437X35U	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-30	WS-C3560V2-48TS-E		1									4 Bldg_711A_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_711C_Floor_Telco1_Room_0001_Rack_0001_	FDO1645Y198	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-22	WS-C3560V2-24TS-S	1										2 Bldg_711C_Floor_Telco1_Room_COMM_Rack_0001_	FDO1645Y1A8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-12	WS-C3560V2-48TS-S		1									4 Bldg_715_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1B1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_B5-9_Floor_0001_Room_0001_Rack_0001_	FDO1437X38P	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-GSAS-01	WS-C3850-48U				3							4 BLDG_GREENSPRINGS_FLR_01_RM_10_RN1_U9	FCW1951FOND,FOC1951UOG3	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-05	WS-C3560V2-24TS-S	1										4 Bldg_QTRS C_Floor_Basement_Room_Telco1_Rack_1_	FDO1645Y190	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-55	WS-C3560V2-24TS-S	1										4 Bldg_QTRS1_Floor_BASEMENT_Room_0000_Rack_0001_	FDO1437X035	NCR QUAN Nodes	NCR	QUAN
DR										1		Russel Knox				
DR										1		Russel Knox				
	Total	121	52	50	237	10	6	0	0	18	950					
** Row #374 location needs to be identified prior to placing in-scope for this effort. For now, we'll identify as a "maybe" / Orange until post VSS.																
QUAN-L00-AS-01	WS-C3750G-24TS-E1U												FOC0951Y3XY	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-25	WS-C3750G-24TS-E1U												FOC1224Z19C	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-CB-01	WS-C3750G-48TS-E												FHG1413R0AZ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U09-GSAS-02	WS-C3850-48U												FOC1951U1LV	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-AS-02	ex4200-48t												BP0210344659	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-AS-03	ex8208												CA1710100238	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-11a	Nexus 3132QV												FOC2120R35P	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-11b	Nexus 3132QV												FOC2120R1DZ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-01	Nexus9000 C9332PQ												FDO21291CS0	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-02	Nexus9000 C9332PQ												FDO21291CQK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-OS-01	WS-C3750G-48TS-E												FHG1413R0B1	MCEN INS Legacy Nodes	MCEN	INS
QUAN-UDZ-IS-01	WS-C3850-48XS												FOC2035Z1HT	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UDZ-OS-01	WS-C3850-48XS												FOC2035Z1HX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-04	WS-C4500X-32												JAE203400MW	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-DH-01	3745											Bldg_1999_Floor_0001_Rm_0001_Rack_0001_	FTX1012A398	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DH-02	3745											Bldg_1999_Floor_0001_Room MDF Rack_0001	FTX1110A2C0	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-CO-01	CISCO2921/K9											Bldg_2008_Floor_0002_Rm_ServerRoom_Rack_001	FTX1748AJ5X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-03	888											Bldg_2046_Floor_0001_Rm_Telco1_Rack_0001_	FTX1642856Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-19	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201NJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-24	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201N9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-12	888											Bldg_2100A_Floor_0001_Room_0001_Rack_0001_	FTX1642854U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-11	888											Bldg_24101_Floor_0001_Room_Telco1_Rack_0001_	FTX1642855Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-13	888											Bldg_24162_Floor_1_Room_Telco1_Rack_1_	FTX1642856M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-02	3745											Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FTX1012A38X	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-01	3745											Bldg_24204_Floor_0001_Room_105_Rack_0006_	FTX1012A38Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-01	888											Bldg_27005_Floor_0001_Room_Telco1_Rack_0001_	FTX1642856J	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-60	WS-C2960-8TC-S								1			Bldg_27028_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-03	CISCO2911/K9											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX1644AKYV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-03	SM-ES2-24											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FOC16403G1P	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-15	888											Bldg_27219_Floor_2_Room_219_Rack_1_	FTX1642854Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-02	CISCO2911/K9											Bldg_27263_Floor_0001_Room_0001_Rack_0001_	FTX1652A00M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-02	SM-ES2-24											Bldg_27263_Floor_0001_Room_Telco1_Rack_001_	FOC16507USN	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-04	CISCO2911/K9											BLDG_27410_FLR_01_RM_182_RN2_U30	FTX1644AKXN	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-13	WS-C2960-8TC-S								1			Bldg_3084A_Floor_1_Room_Telco_Rack_1_	FOC1512V375	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-27	WS-C2960-8TC-S								1			Bldg_3085B_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G0	NCR QUAN Nodes	NCR	QUAN
QUAN-U00-IS-04	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_179_Rack_0002_	FDO1239Z0XQ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-SS-01	WS-C4503-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0002_	SPE1447006J	Test_Partition_Realm_Change	#VALUE!	#VALUE!
QUAN-UB1-CB-01	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003	FOX1229GJFK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-02	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003_	FOX1045051Z	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-01	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003	FGE21252B1A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-02	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FGE21252B1W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-03	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FDO1236Y09Q	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-05	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FOX10450523	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IS-03	WS-C4500X-32											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0016	JAE1943032Y	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-01	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1244GDUX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-02	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1224GFZ4	MCEN INS QUAN Nodes	MCEN	INS

QUAN-UB1-OS-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	SAL1630HP4W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-EO-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0112_	SAL13516P34	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U01-BI-01	ASR1002-X											BLDG_3255_RM_179_ROW_4_RACK_1	FOX1938G7PZ	MARFORRES CLJN Nodes	MARFORRES	CLJN
QUAN-UB1-OR-01	CISCO3945-CHASSIS											Building 3255, Room 179, Row 4, Rack 1, RU1	FTX1644AK5S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-08	WS-C3850-12XS												FCW1949F0Z4,FCW1949C17X	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-IR-01	ASR1004											MCEN-ES	FOX1352GKYQ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-IS-01	WS-C3750G-48TS-E											MCEN-ES	FHG1413R0BJ	MCEN INS Legacy Nodes	MCEN	INS

OLT QUAN-U03-OL-01			
BLDG	ONT	COUNT	ONT SW
3			
	709GP	1	ONT709GP.3.21.3
72			
	140C	1	ONT140.1.7.34
1775			
	728GP	3	ONT728GP.3.20.7
1999			
	140C	1	ONT140.1.7.34
2044			
	728GP	54	ONT728GP.3.20.7
2076			
	709GP	1	ONT709GP.3.21.3
2118			
	140C	1	ONT140.1.7.34
2200			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
2202			
	709GP	1	ONT709GP.3.21.3
2203			
	709GP	2	ONT709GP.3.21.3
2204			
	709GP	1	ONT709GP.3.21.3
2207			
	709GP	1	ONT709GP.3.21.3
2208			
	709GP	1	ONT709GP.3.21.3
2209			
	709GP	1	ONT709GP.3.21.3
2210			
	709GP	1	ONT709GP.3.21.3
2247			
	709GP	1	ONT709GP.3.21.3
2248			
	709GP	1	ONT709GP.3.21.3
2249			
	709GP	1	ONT709GP.3.21.3
2301			
	728GP	1	ONT728GP.3.20.7
3077			
	728GP	1	ONT728GP.3.20.7
3086			
	709GP	1	ONT709GP.3.21.3
3230			
	709GP	1	ONT709GP.3.21.3
3232			
	709GP	1	ONT709GP.3.21.3
3240			
	140C	1	ONT140.1.7.34
3259			
	709GP	1	ONT709GP.3.21.3
3399			
	709GP	1	ONT709GP.3.21.3
24204			
	709GP	1	ONT709GP.3.21.3
27282			
	709GP	1	ONT709GP.3.21.3
28000			
	709GP	1	ONT709GP.3.21.3
28009			
	709GP	1	ONT709GP.3.21.3

OLT QUAN-U07-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24005			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24006			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24008			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24009			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24015			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24017			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24018			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24142			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24144			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24157			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24164			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
24180			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24191			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24193			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24194			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24195			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24196			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24197			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24198			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24199			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24200			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24204			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
27282			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130C			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		38	
TOTAL		31	
TOTAL		7	

OLT QUAN-U08-OL-01			
BLDG	ONT	COUNT	ONT SW
69			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
122			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1304			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1775			
	729GP	5	ONT729GP.3.20.7;ONT729_V005591
1999			
	140C	1	ONT140.1.7.34
	140W	4	ONT140.1.7.34
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
2033			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2044			
	729GP	17	ONT729GP.3.20.7;ONT729_V005591
2076			
	709GP	1	ONT709GP.3.21.3
2117			
	709GP	1	ONT709GP.3.21.3
2187			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2200			
	709GP	1	ONT709GP.3.21.3
2301			
	729GP	34	ONT729GP.3.20.7;ONT729_V005591
3065			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3070			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
3186			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3202			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3228			
	709GP	1	ONT709GP.3.21.3
3229			
	728GP	1	ONT728GP.3.20.7
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3230			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3240			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3255			
	709GP	1	ONT709GP.3.21.3
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3259			
	709GP	3	ONT709GP.3.21.3
3280			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3300			
	709GP	1	ONT709GP.3.21.3
3311			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3312			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3313			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3314			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591

OLT QUAN-U09-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26100			
	709GP	1	ONT709GP.3.21.3
26164			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26183			
	709GP	1	ONT709GP.3.21.3
27170			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27277			
	729GP	6	ONT729GP.3.20.7;ONT729_V005591
27278			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
27277A			
	709GP	1	ONT709GP.3.21.3
27290TX			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		16	
TOTAL		8	
TOTAL		8	

1//2			
	709GP	1	ONT709GP.3.21.3
2189A			
	709GP	1	ONT709GP.3.21.3
2201A			
	709GP	1	ONT709GP.3.21.3
2203A			
	709GP	1	ONT709GP.3.21.3
3230T			
	709GP	1	ONT709GP.3.21.3
TOTAL		92	
TOTAL		28	
TOTAL		64	

140C	5 4 port
140W	4 4 port
709GP	40 4 port
728GP	60 24 Port
729GP	144 24 Port
	253

Total 24 port switches Needed	De-Scope	146
Total SFP's	De-Scope	584

5001			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5002			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5003			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2189A			
	709GP	1	ONT709GP.3.21.3
2189N			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3083A			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
TOTAL		107	
TOTAL		40	
TOTAL		67	

** Red-Highlighed items already have MCEN-N presense within those building arleady and are deemed out-of-scope until VSS.

** All other legacy ONT devices will be replaced with C9300L-24P-4X-A switches

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
INHZ-U00-IR-01	INHZ	Router	Cisco	CISCO2911/K9						Naval Surface Warfare Center Indian Head MD Bldg 290	FTX1644AL07	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IR-04	INHZ	L3Switch	Cisco	WS-C3750G-12S-E						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X2G5	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IS-01	INHZ	Router	Cisco	SM-ES2-24						Naval Surface Warfare Center Indian Head MD Bldg 290	FOC16403FPC	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-OS-03	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X1Z8	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U01-AS-01	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_521_Floor_1_Rm_Warehouse_Rack_1	FDO1436X243	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-02	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-S			1			4 Bldg_700_Floor_1_Room_RouterRm_Rack_1_	FDO1623X01R	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-03	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-E			1			4 Bldg_2083_Floor_1_Room_storagecloset_Rack_1_	FDO1529X1YG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-04	INHZ	L3Switch	Cisco	WS-C4506-E				3		4 Bldg_901_Floor_1_Room_112_Rack_1_	SPE173000BG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-05	INHZ	L3Switch	Cisco	WS-C4506-E				3		2 Bldg_901_Floor_1_Room_Mail_Rack_1_	SPE173000CR	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-06	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_290_Floor_1_Rm_MSf_Rack_AccessCab2	FDO1436X2S3	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-07	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_D61_Floor_1_Room_Boiler_Rack_1_	FDO1645Y140	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-08	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_870_Floor_1_Room_1_Rack_Wallrack_	FDO1437X03Q	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-DS-01	INHZ	L3Switch	Cisco	WS-C3750G-12S-S					2	Bldg_290_Floor_1_Room_MSf_Rack_8_	FDO1402Y2EK	NCR QUAN Nodes	NCR	QUAN
Total					4		2	6	2	30				

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 3X	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
PKWY-U00-IR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ3	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ2	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					MCSC Tech Parkway Stafford VA	FDO1403X0CU	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-04	PKWY	L3Switch	Cisco	WS-C3560V2-24TS-S					MCSC Tech Parkway Stafford VA	FDO1437X3GW	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSN4	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSNH	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_PKWY_Floor_0001_Room_Telco1_Rack_0001	FDO1403X0CP	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U01-AS-01	PKWY	L3Switch	Cisco	WS-C4506-E			3		4 Bldg_105_Floor_0001_Room_0004_Rack_0001_	FOX1415G443	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-02	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_0001_Room_0004_Rack_0001_	SPE152500N1	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-03	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_PG10_Rack_5_	FOX1429G267	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-04	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_MRAP_Rack_4_	FOX1405G60H	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-05	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105TechPKY_Floor_GCSS_Room_Telco1_Rack_0003_	FOX1428H2JX	NCR QUAN Nodes	NCR	QUAN
Total							15	12					

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	SFP-10G-LR++	Device Location	Serial Number	Asset Tag	Partition	count	company	mitsc
SCPA-U00-IR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGC,FOC12085P69		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U00-OR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGF,FOC12085P6A		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U01-AS-01	SCPA	L3Switch	Cisco	WS-C4506-E			3	4	Bldg_51BH_Floor_0002_Room_Telco1_Rack_0001_	SPE17280251		NCR QUAN Nodes	4	NCR	QUAN
				Total			3	4							

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BAND-U00-IR-01	BAND	Router	Cisco	CISCO2911/K9					Bldg_1_Floor_Basement_Room_Basement_Telco_Rack_1_	FTX1644AKUW	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-IS-01	BAND	Router	Cisco	SM-ES2-24					Bldg_1_Floor_Basement_Room_BasementTelco_Rack_1_	FOC16418358	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-OR-01	BAND	Router	Cisco	ASR1002-X					Bldg_1_Floor_Basement_Room_Telco Rm_Rack_1_	FOX1829G0ZX	MCEN INS QUAN Nodes	MCEN	INS
BAND-U01-AS-01	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S			De-Scope 1	De-Scope 4	Bldg_1_Floor_Basement_Room_TelcoRm_Rack_1_	FDO1437V253	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-02	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_Floor_1_Room_Lan RM_Rack_1_	FDO1621X11M	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-03	BAND	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_WireCloset_Rack_1_	FDO1623X01P	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-05	BAND	L3Switch	Cisco	WS-C3560X-48T-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_Telco Rm_Rack_1_	FDO1913P09U	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-06	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_floor_Garage_Room_StorageRm_Rack_1_	FDO1437V25B	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-DS-01	BAND	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_1_Floor_Basement_Room_TelcoRM_Rack_1_	FDO1408X10T	HQMC QUAN Nodes	HQMC	QUAN

Total0000

** Row 10 (WS-3750G-12S-S) can be taken out of scope since all access switches will connect to row 5 (C9300-48P-A).

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BRRK-U00-IR-01	BRRK	Router	Cisco	CISCO2921/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AJKD	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IR-02	BRRK	Router	Cisco	CISCO2911/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AKRR	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-01	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC16403FY5	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-02	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC1641834K	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_2_	FDO1436X1ZL	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OR-01	BRRK	Router	Cisco	ASR1002-X							Bldg_700_Floor_2_Room_Server_Rack_3_	FOX1830GSKX	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_3_	FDO1436X265	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U01-AS-01	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 4	Bldg_700_Floor_1_Room_S1_Rack_1_	SPE173400CX	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-02	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 2	Bldg_700_Floor_2_Room_mfd_Rack_1_	SPE173000ET	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-03	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_9_Floor_Basement_Room_LAN Room_Rack_1_	FXS1733Q0TH	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-04	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_20_Floor_Garage_Room_LanRoom_Rack_1_	FXS1735Q2F2	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-05	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_21_Floor_1_Room_1_Rack_1_	FXS1733Q0YY	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-06	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS1_Floor_Basement_Room_Comm_Rack_1_	FDO1436X2SJ	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-07	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS2_Floor_Basement_Room_Comm_Rack_1_	FDO1436X26H	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-08	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS3_Floor_Basement_Room_Comm_Rack_1_	FDO1436X1SK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-09	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS4_Floor_Basement_Room_Comm_Rack_1_	FDO1436X3J4	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-10	BRRK	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1				De-Scope 4	Bldg_CMC_Floor_Basement_Room_CommRm_Rack_1_	FDO1630X009	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-01	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-02	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CS	HQMC QUAN Nodes	HQMC	QUAN
Total						0	0	0	0	0	0				

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc				
WNYZ-L00-CB-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U							MCEN-ES	FOC1110Z342	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-CB-02	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC0935U0UT	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-CB-03	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-S1U								FOC1030Y47D	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-IR-01	WNYZ	Router	Cisco	ASR1002-X								FOX1830GSKY	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-IS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Z20E	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-OR-01	WNYZ	Router	Cisco	ASR1006								FXS1817Q2D3	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-L00-OS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Y2BD	MCEN INS QUAN Nodes	MCEN	INS				
WNYZ-U00-IR-01	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_Server Farm_Row_8_Rack_2_	FTX1644AKZ6	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U00-IR-02	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FTX1644AL58	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U00-IR-04	WNYZ	L3Switch	Cisco	WS-C3750G-12S-E								Bldg_220_Floor_2_Room_220_Rack_1_	FDO1436X2HF	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U00-IS-01	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FOC17440MJX	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U00-IS-02	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_Server Farm_Row_8_Rack_2_	FOC17440MG6	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U00-OS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S								Bldg_196_Floor_2_Room_ServerFarm_Rack_2/RowA_	FDO1529X1J2	MCEN INS QUAN Nodes	MCEN	INS			
WNYZ-U01-AS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 3		De-Scope 4	Bldg_196_Floor_3_Room_302_Rack_1_	FDO1645Y12P	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-AS-04	WNYZ	L3Switch	Cisco	WS-C4506-E	De-Scope 1					De-Scope 4	Bldg_220_Floor_2_Room_220_Rack_1_	FOX1346GVRV	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-AS-05	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S						De-Scope 4	Bldg_211_Floor_1_Room_Telco	FDO1542X352	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-AS-06	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U						De-Scope 4	Bldg_196_Floor_2_Room_243_Rack_16_	FOC1209Z4UT	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-AS-07	WNYZ	L3Switch	Cisco	WS-C4503-E						De-Scope 4	Bldg_169_Floor_1_Room_Storage_Rack_1_	FXS1735Q2E7	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-AS-08	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1	De-Scope 2				De-Scope 4	Bldg_Qtrs V_Floor_2_Room_upstair_Rack_1_	FDO1645Y135	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-DS-01	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2EB	HQMC QUAN Nodes	HQMC	QUAN				
WNYZ-U01-DS-02	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2FX	HQMC QUAN Nodes	HQMC	QUAN				
Total					0	0	0	0	0										

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
ANNZ-U00-IR-01	ANNZ	Router	Cisco	CISCO3925-CHASSIS						Bldg_72_Floor_1_Room_140_Rack_1_	FTX1644AHV3	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-IS-01	ANNZ	Router	Cisco	SM-ES2-24						Bldg_72_Floor_1_Room_140_Rack_1_	FOC16403FQA	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-OS-03	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Bldg_72_Floor_1_Room_143_Rack_1_	FDO1436X26E	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U01-AS-02	ANNZ	L3Switch	Cisco	WS-C4506-E			3			4 Bldg_351_Floor_1_Room_Admin_Rack_1_	FXS1732Q0DX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-03	ANNZ	L3Switch	Cisco	WS-C3560-48TS-S		1				2 Bldg_351_Floor_2_Room_1_Rack_1_	FDO1431Z0YP	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-04	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1					2 Bldg_352B_Floor_1_Room_1_Rack_1_	FDO1632X2QY	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-05	ANNZ	L3Switch	Cisco	WS-C3750G-24TS-S	1					2 Bldg_352A_Floor_1_Room_1_Rack_1_	CAT1050RGD2	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-99	ANNZ	Router	Cisco	C891F-K9						Bldg_351_Floor_1_Room_120_Rack_FSRDesk	FJC2034L1RJ	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-BI-01	ANNZ	Router	Cisco	CISCO2921/K9						VERIZON-CIRCUIT-ID (BCBKSDH60001) T-1	FTX1424AHN8	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-DH-01	ANNZ	Router	Cisco	2811						Bldg_351_Floor_1_Room_109_Rack_1_	FTX1436A0XC	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-DP-02	ANNZ	Router	Cisco	CISCO2911/K9						Bldg_400A_Floor_1_Room_1_Rack_1_	FTX1644AKYX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-ES-02	ANNZ	Router	Cisco	SM-ES2-24						Bldg_400A_Floor_1_Room_1_Rack_1_	FOC1614709K	HQMC QUAN Nodes	HQMC	QUAN
Total					2	1	3	0	10					

PERFORMANCE SPECIFICATION FOR MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA

28 September 2020



Prepared By:

**UNITED STATES MARINE CORPS
Marine Corps Systems Command
Supporting Establishment Systems
PMM170 Network and Infrastructure**

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1 GENERAL

This is a Firm-Fixed-Price (FFP) Contract, for the Network Communications Infrastructure (NCI) program office to modernize the enterprise communications infrastructure aboard Marine Corps Base (MCB) Quantico, VA.

The services included in this FFP contract will be non-personal services. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the contractor who, in turn is responsible to the Government. The Government will describe the specific performance requirements at the task and delivery order level, but all work performed will fall within the general scope described herein.

1.1 DESCRIPTION OF SERVICES / INTRODUCTION

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform modernization and sustainment services as defined in this Performance Specification except for those items specified as Government Furnished Property (GFP) and services. The contractor shall perform to the standards articulated in this contract.

1.2 BACKGROUND

Traditionally, Marine Corps Systems Command (MCSC), NCI Program Office (previously known as the Base Telecommunications Infrastructure) has been responsible for the upgrade and expansion of the Marine Corps' legacy Time Division Multiplexing (TDM) voice systems, Synchronous Optical Network (SONET), and outside plant (OSP) cable infrastructure. These previous efforts were typically executed via individual FFP Contracts. Due to advancing technologies and increased requirements, the BTI mission expanded to include the complete modernization/replacement of all Low Speed Time Division Multiplexing (LSTDM) technologies. More recently, the NCI mission has expanded to include the modernization of the Distribution and Access Layer Transport infrastructure to the End-User Building (EUB). As a result, NCI is now responsible for the modernization and sustainment of the Base Area Network (BAN)/Local Area Network (LAN) and the Unified Communications (UC) at every Marine Corps Installation (MCI).

1.3 OBJECTIVES

The objective of this initiative is the complete modernization of the Base Telecommunications Infrastructure (BTI) aboard MCB Quantico in accordance with (IAW) the Marine Corps Wide Area Network (WAN) Transport Implementation Plan that aligns with the normalization of the Joint Information Environment (JIE). This will be realized through the enterprise-wide deployment of homogeneous systems and subsystems in order to minimize operation demands on Installation personnel and simplify sustainment activities for the NCI Program Office. This modernization effort shall include the BAN Transport and Unified Communications aboard MCB Quantico that will support the details in Sections 5.1 and 8.2 of this PWS. The overall intent of this PWS is to establish a standardized enterprise solution with the flexibility for a System Integrator (SI) to support sustainment activities that includes technical refresh and unforeseen systems upgrades to hardware, software, and ancillary equipment.

1.4 SCOPE

This PWS establishes and defines the requirements for the contractor to Engineer, Furnish, Install, Secure, Test (EFIST) and make operational a turnkey BAN Transport and Enterprise UC Voice solution for the modernization of the existing communication infrastructure at MCB Quantico – or other USMC facilities as defined by the Government – to include enterprise integration and convergence. The contractor shall also provide all ancillary equipment, labor, training, software, firmware, licenses, grounding, and interfaces associated with these systems to deliver a complete turnkey solution. The contractor shall provide all supporting documentation associated with the delivered solution.

1.5 ORDERING PERIOD / PERIOD OF PERFORMANCE

The delivery for this modernization effort will be 18 months after contract award.

1.6 GENERAL INFORMATION

1.6.1 RECONGNIZED HOLIDAYS

The contractor is not required to perform work or services on the Federal Government holidays identified below.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

1.6.2 HOURS OF OPERATION

The contractor shall provide services IAW Marine Corps Systems Command Order 5530.2, working hours for on-site contractors shall be within 0630-1800 local time. All work shall typically be performed within the Government-defined core hours. There may be a need for occasional work outside of normal Government-defined core hours. No overtime will be authorized.

1.6.3 PLACE OF PERFORMANCE

The work to be performed under this FFP Contract will be performed at MCB Quantico in Quantico, VA.

1.6.4 TYPE OF CONTRACT

The Government will award a FFP Contract issued for specific work at MCB Quantico.

1.6.5 PHYSICAL SECURITY

The contractor shall be responsible for safeguarding all Government equipment, information and property provided for contractor use. At the close of each work period, Government facilities, equipment, and materials shall be secured.

1.6.6 SECURITY REQUIREMENTS

The information provided to the contractor will be unclassified and/or Controlled Unclassified Information (CUI). Certain contractors will be required to perform IT-I/II duties that require favorably adjudicated Tier 5/3 Level investigations. The Defense Counterintelligence Security Agency (DCSA) will not authorize contractors to submit the necessary Tier Level investigations, solely in support of IT level designation requirements, without a valid classified requirement as specified in a DD-254. This effort does not warrant a DD-254, therefore the Government Contracting Activity Security Office (GCASO) is required to submit any required investigations in support of IT level designations. The contractor is required to provide a roster of prospective contractor employees performing IT Level II and/or IT Level I duties to the MCSC Contracting Officer's Representative (COR). This roster shall include: full names, Social Security Numbers, IT Level required, e-mail address, and phone number for each contractor requiring investigations in support of IT Level designations. The COR will verify the IT Level requirements and forward the roster to the GCASO. Contractors found to be lacking required investigations will be contacted by the GCASO.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) via encrypted e-mail to MCSC_Security@usmc.mil or 703-432-3374/3952 if any contractor performing on this contract receives an unfavorable adjudication. The FSO must also notify the PERSEC Office, within 24 hours, of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor performing on this contract, if they have been granted an IT designation, issued a CAC and/or a MCSC Building Badge. The FSO shall notify the Government (written notice) within 24 hours of any contractor personnel added or removed from the contract that have been granted IT designations, issued a Common Access Card (CAC) and/or a MCSC Building badge/access.

1.6.6.1 DEFENSE BIOMETRIC IDENTIFICATION CARD

Certain contractors may require the issuance of a Defense Biometric Identification (DBID) card in order to gain access to MCB Quantico. The Contracting Officer Representative (COR) will identify and approve only those contractor personnel performing on this contract that require a DBID card in order to perform their job function aboard the base.

1.6.6.2 VENDOR SCREENING

The contractor shall return a completed Contractor Screening Form, which will be provided as Attachment (5) to the SF1449, in order to identify all contractor personnel requiring access to Installations/Detachments, base facilities, and/or handling Government assets. This form includes personal identification information for respective contractor personnel and shall be either: hand delivered to the Installation Technical Support Officer (TSO) or sent in a password protected document. If the vendor screening form is sent via e-mail, the password shall be provided and sent in a separate email. The contractor shall provide a completed form to the TSO no later than two (2) weeks prior to the start of work for processing and vetting by the Installation/Detachment Security Office. The Security Office will respond with any favorable or unfavorable screening outcomes as they are received from the Installation Provost Marshall's Office (PMO). Any personnel receiving an unfavorable outcome will not be authorized access to the Installation for the purpose of performing work related to this contract.

All required escorts shall be provided by Base, G/S-6 staff. It is the contractor's responsibility to secure any facility upon exiting the facility for which they are provided a key and unescorted access. The Base, G/S-6 will exercise security supervision over all contractor personnel working on this project and will provide security support to the contractor. The contractor shall comply with all emergency rules and procedures established for this Base. All personnel aboard the Base are subject to random inspections of their vehicles, personal items, and of themselves. Consent to these inspections is considered to have been given upon entrance to the base and its facilities. Photography, videotaping, and/or audio recordings aboard the base are strictly prohibited without proper authorization by the local Base authorities.

1.6.6.3 COMMON ACCESS CARD

The COR will identify and only approve those contractor employees performing on this contract that require CACs in order to perform their job function. In accordance with Headquarters, United States Marine Corps issued guidance relative to Homeland Security Presidential Directive – 12 (HSPD-12), all personnel must meet eligibility criteria to be issued a CAC. In order to meet the eligibility criteria, contractor employees requiring a CAC must obtain and maintain a favorably adjudicated Personnel Security Investigation (PSI). Prior to authorizing a CAC, the employee's Joint Personnel Adjudication System (JPAS) record must indicate a completed and favorably adjudicated PSI or (at a minimum) that a PSI has been submitted and accepted (opened). The minimum acceptable investigation is a T-1 or a National Agency Check with Written Inquiries (NACI). If a contractor employee's open investigation closes and is not favorably adjudicated, the CAC must be immediately retrieved and revoked. CACs are not issued for convenience.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) at 703-432-3490/3952 if any contractor performing on this contract receives an unfavorable adjudication after being issued a CAC. The FSO must also immediately notify the PERSEC Office of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor issued a CAC, regardless of whether a JPAS Incident Report is submitted.

Each CAC is issued with a "ctr@usmc.mil" e-mail account that the individual contractor is responsible to keep active by logging in on a regular basis (at least twice a month), sending an e-mail and clearing any unneeded e-mails. Contractors issued a CAC are prohibited from "auto-forwarding" e-mail from their .mil e-mail account to their .com e-mail account. If the "ctr@usmc.mil" e-mail account is not kept active, G-6 will deactivate the account and the CAC will also lose its functionality. Contractor employees shall solely use their government furnished "ctr@usmc.mil" e-mail accounts for work supporting the USMC, conducted in fulfillment of this contract, and shall not use a contractor supplied or personal e-mail account to conduct FOUO government business. The use of a contractor or personal e-mail account for contractor business or personal use is allowed, but only when using cellular or a commercial internet service provider.

If a contractor loses their eligibility for a CAC due to an adverse adjudicative decision, they have also lost their eligibility to perform on MCSC contracts.

1.6.6.4 MARINE CORPS ENTERPRISE NETWORK COMPUTER ACCESS

Contractor personnel accessing Marine Corps Systems Command Computer systems must maintain compliance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access

Guide. Contractor personnel will submit a DD Form 2875, Systems Authorization Access Request (SAAR), and completion certificates for the CYBERC course located on MarineNet at <https://www.marinenet.usmc.mil>. The CYBERC course consists of the DoD Cyber Awareness Challenge and Department of the Navy Annual Privacy Training on Personally Identifiable Information (PII). Contractors will have to create a MarineNet account in order to acquire the required training.

Marine Corps Enterprise Network (MCEN) Information Technology (IT) resources if provided are designated For Official Use Only (FOUO) and other limited authorized purposes. DoD military, civilian personnel, consultants, and contractor personnel performing duties on MCEN information systems may be assigned to one of three position sensitivity designations.

1. ADP-I (IT-1): Favorably adjudicated T-5, T5R, (formerly known as Single Scope Background Investigation (SSBI)/SSBI Periodic Reinvestigation (SBPR)/SSBI Phased Periodic Reinvestigation (PPR))
2. ADP-II (IT-2): Favorably adjudicated T-3, T3R, (formerly known as Access National Agency Check and Inquiries (ANACI)/ National Agency Check with Law and Credit (NACLC)/Secret Periodic Review (S-PR))
3. ADP-III (IT-3): Completed T-1, (formerly known as National Agency Check with Inquiries (NACI))

All privileged users (IT-1) must undergo a T-5 investigation regardless of the security clearance level required for the position. Privileged users must maintain the baseline Cyberspace Workforce Cybersecurity Technical (CST) or Cybersecurity Manager (CSM) relating to the position being filled. Privileged users are defined as anyone who has privileges over a standard user account as in system administrators, developers, network administrators, code signing specialist and Service Desk technicians.

All MCEN users must read, understand, and comply with policy and guidance to protect classified information and Controlled Unclassified Information (CUI), and to prevent unauthorized disclosures in accordance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access Guide and CJCSI 6510.01F.

MCEN Official E-mail Usage - MCEN IT resources are provided for official Government use only and other limited authorized purposes. Authorized purposes may include personal use within limitations as defined by the supervisor or the local command. Auto forwarding of e-mail from a MCEN Non-classified Internet Protocol Network MCEN-N) to commercial or private domains (e.g., Hotmail, Yahoo, Gmail, etc.) is strictly prohibited. E-mail messages requiring either message integrity or non-repudiation are digitally signed using DoD Public Key Infrastructure (PKI). All e-mail containing an attachment or embedded active content must be digitally signed.

MCEN users will follow specific guidelines to safeguard CUI, including PII and FOUO. Non-official e-mail is not authorized for and will not be used to transmit CUI to include PII and Health Insurance Portability and Accountability Act (HIPAA) information. Non-official e-mail is not authorized for official use unless under specific situations where it is the only mean for communication available to meet operational requirements. This can occur when the official MCEN provided e-mail is not available but must be approved prior to use by the Marine Corps Authorizing Official (AO).

All personnel will use DoD authorized PKI certificates to encrypt e-mail messages if they contain any of the following:

1. Information that is categorized as FOUO or Sensitive but Unclassified (SBU).
2. Any contract sensitive information that normally would not be disclosed to anyone other than the intended recipient.
3. Any privacy data, PII, or information that is intended for inclusion in an employee's personal file or any information that would fall under the tenets of MSGID: DOC/5 USC 552A. Personal or commercial e-mail accounts are not authorized to transmit unencrypted CUI or PII.
4. Any medical or health data, to include medical status or diagnosis concerning another individual.
5. Any operational data regarding status, readiness, location, or deployment of forces or equipment.

1.6.6.5 KEY CONTROL

The contractor shall establish and implement methods of making sure all keys/key cards issued to the contractor by the Government are not lost or misplaced and are not used by unauthorized persons.

NOTE: All references to keys include key cards.

No keys issued to the contractor by the Government shall be duplicated. The contractor shall develop procedures covering key control that shall be included in the Quality Control Plan. Such procedures shall include turn-in of any issued keys by personnel who no longer require access to locked areas. The contractor shall immediately report any occurrences of lost or duplicate keys/key cards to the Contracting Officer.

In the event keys, other than master keys, are lost or duplicated, the contractor shall, upon direction of the Contracting Officer, re-key or replace the affected lock or locks; however, the Government, at its option, may replace the affected lock or locks or perform re-keying. When the replacement of locks or re-keying is performed by the Government, the total cost of re-keying or the replacement of the lock or locks shall be deducted from the next payment due the contractor. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced by the Government and the total cost deducted from the next payment due the contractor.

The contractor shall prohibit the use of Government issued keys/key cards by any persons other than the contractor's employees. The contractor shall prohibit the opening of locked areas by contractor employees to permit entrance of persons other than contractor employees engaged in the performance of assigned work in those areas, or personnel authorized entrance by the Contracting Officer.

1.6.6.6 LOCK COMBINATIONS

The contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. The contractor shall ensure that lock combinations are changed when personnel having access to the combinations no longer have a need to know such combinations. These procedures shall be included in the contractor's Quality Control Plan.

1.6.7 POST AWARD CONFERENCE/PERIODIC MEETINGS

The contractor agrees to attend any post award conference convened by the contracting activity in accordance with Federal Acquisition Regulation Subpart 42.5. The Contracting Officer, Contracting Officer's Representative (COR), and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the Contracting Officer will apprise the contractor of how the Government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.6.8 CONTRACTING OFFICER'S REPRESENTATIVE

The COR(s) will be identified by separate letter(s) and monitors all technical aspects of the FFP Contract, task and delivery orders, and assists in contract administration. The COR(s) is authorized to perform the following functions: assure that the contractor performs the technical requirements of the contract; perform inspections necessary in connection with contract performance; maintain written and oral communications with the contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor contractor's performance and notify both the Contracting Officer and contractor of any deficiencies; coordinate availability of Government Furnished Property (GFP); and provide site entry of contractor personnel. A letter of designation issued to the COR(s), a copy of which is sent to the contractor, states the responsibilities and limitations of the COR(s), especially regarding changes in price estimates or changes in delivery dates or periods of performance. The COR(s) is/are not authorized to change any of the terms and conditions of the resulting order, especially any terms that affect price, delivery schedule, or period of performance.

1.6.9 KEY PERSONNEL

The contractor shall provide a Project Manager who shall be responsible for the performance of the work. The name of this person and an alternate who shall act for the contractor when the manager is absent shall be designated in writing to the Contracting Officer. The Project Manager or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract.

The Project Manager or alternate shall be available between 8:00 AM to 4:30 PM, Monday thru Friday based on the time zone of the location/Installation except Federal holidays or when the Government facility is closed for administrative reasons.

Qualifications for all key personnel are listed in Table 1.

Table 1 – Key Personnel*

KEY PERSONNEL	CERTIFICATIONS	EXPERIENCE	SKILL	PROJECT SEQUEMENT
Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and organizational skills	Implementation
On-Site Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and supervisory skills	Implementation
Quality Control/Quality Assurance Manager	BICSI Installer Certified	7 Years QC/QA Management	Proven telecommunications quality management skills	Implementation
Lead Systems Engineer (LSE)	BS Science/Engineering	10 Years Engineering Discipline	Licensed Professional Engineer (PE)	Implementation
Network/Telecommunications Engineer	Registered Communications Distribution Design (RCDD)	10 Years Network/Telecommunications	Proven telecommunications design and installation skills	Implementation
Logistician	Certified Professional Logistician	5 Years Logistics Management	Proven leadership, management, and organizational skills	Sustainment

* For the Quality Control/Quality Assurance Manager, the Contractor may swap 5 years of relevant QC/QA experience for the BICSI certification.

* For the Logistician, the Contractor may swap 5 years of logistics experience for the Certified Professional Logistician certification

1.6.10 IDENTIFICATION OF CONTRACTOR EMPLOYEES

All contract personnel attending meetings, answering Government telephones, and working in any situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed. Contractors shall obtain visitor badges in accordance with MCB Quantico security policy.

1.6.11 CONTRACTOR TRAVEL

The contractor may be required to travel to off-site training locations and to ship training aids to these locations in support of this PWS. Contractor may be authorized travel expenses consistent with the substantive provisions of the Federal Acquisition Regulation 31.205-46 and the limitation of funds specified in each task and delivery order. All travel requires prior Government approval/authorization by the COR(s).

1.6.12 ORGANIZATION CONFLICT OF INTEREST

To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the contractor shall protect the data from unauthorized use and disclosure and agrees not to use it to compete with those other companies.

1. “Organizational Conflict of Interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the government, or the person’s objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. “Person” as used herein includes corporations, partnerships, joint ventures, and other business enterprises.

2. The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in the contract, the contractor does not have any organizational conflict of interest(s) as defined in paragraph (1).
3. It is recognized that the effort to be performed by the contractor under this contract may create a potential organizational conflict of interest on the instant contract or on a future acquisition. In order to avoid potential conflict of interest, and at the same time to avoid prejudicing the best interest of the government, the right of the contractor to participate in future procurement of equipment and/or services that are the subject of any work under this contract shall be limited as described below in accordance with the requirements of FAR Subpart 9.5.
4. The contractor agrees:
 - a) That it shall not release, disclose, or use in any way that would permit or result in disclosure to any party outside the government any information provided to the contractor by the government during or as a result of performance of this contract. Such information includes, but is not limited to, information submitted to the government on confidential basis by other persons. Further, the prohibition against release of government provided information extends to cover such information whether or not in its original form, e.g., where the information has been included in contractor generated work or where it is discernible from materials incorporating or based upon such information. This prohibition shall not expire after a given period of time. See, DFARS 252.204-7000, Disclosure of Information, included in the contract.
 - b) The contractor agrees that it shall not release, disclose, or use in any way that would permit or result in disclosure or any party outside the government any information generated or derived during or as a result of performance of this contract.
 - c) The prohibitions contained in subparagraphs (4)(a) and (4)(b) shall apply with equal force to any affiliate of the contractor, any subcontractor, consultant, or employee of the contractor, any joint venture involving the contractor, any entity into or with which it may merge or affiliate, or any successor or assign of the contractor. The terms of paragraph (f) of the Special contractor Requirement relating to notification shall apply to any release of information in contravention of this paragraph (4).
5. The contractor further agrees that during the performance of this contract and for a period of three years after completion of performance of this contract, the contractor; any affiliate of the contractor; any subcontractor, consultant, or employee of the contractor; any joint venture involving the contractor; any entity into or with which it may subsequently merge or affiliate; or any other successor or assign of the contractor, shall not furnish to the Marine Corps, either as a prime contractor or as a subcontractor, or as a consultant to a prime contractor or as a subcontractor, any system, component or services which is the subject of the work to be performed under this contract. This exclusion does not apply to any re-competition for those systems, components, or services on the basis of work statements growing out of the effort performed under this contract, developed from a source other than the contractor, subcontractor affiliate, or assign of either. During the course of performance of this contract or before the three-year period following completion of this contract has lapsed, the contractor may, with the authorization of the cognizant contracting officer, participate in a subsequent procurement for the same system, component, or service. In other words, the contractor may be authorized to

compete for procurement(s) for systems, components or services subsequent to an intervening procurement.

6. The contractor agrees that, if after award, it discovers an actual or potential organizational conflict of interest; it shall make immediate and full disclosure in writing to the contracting officer. The notification shall include a description of the actual or potential organizational conflict of interest, a description of the action, which the contractor has taken or proposes to take to avoid, mitigate, or neutralize the conflict, and any other relevant information that would assist the contracting officer in making a determination on this matter. Notwithstanding this notification, the government may terminate the contract for the convenience of the government if determined to be in the best interest of the government.
7. Notwithstanding paragraph (6) above, if the contractor was aware, or should have been aware, of an organizational conflict of interest prior to the award of this contract or becomes, or should become aware of an organizational conflict of interest after award of this contract and does not make an immediate and full disclosure in writing to the contracting officer, the government may terminate this contract for default.
8. If the contractor takes any action prohibited by this requirement or fails to take action required by this requirement, the government may terminate this contract by default.
9. The contracting officer's decision as to the existence or nonexistence of the actual or potential organization conflict of interest shall be final and is not subject to the clause of this contract entitled "DISPUTES" (FAR 52.233.1).
10. Nothing in this requirement is intended to prohibit or preclude the contractor from marketing or selling to the United States Government its product lines in existence on the effective date of this contract; nor, shall this requirement preclude the contractor from participating in any research and development. Additionally, sale of catalog or standard commercial items are exempt from this requirement.
11. The contractor shall promptly notify the contracting officer, in writing, if it has been tasked to evaluate or advise the government concerning its own products or activities or those of a competitor in order to ensure proper safeguards exist to guarantee objectivity and to protect the government's interest.
12. The contractor shall include this requirement in subcontracts of any tier which involve access to information or situations/conditions covered by the preceding paragraphs, substituting "subcontractor" for "contractor" where appropriate.
13. The rights and remedies described herein shall not be exclusive and are in addition to other rights and remedies provided by law or elsewhere included in this contract. 5.4. Proprietary Information Exchange Agreement (PIEA)/Non-Disclosure Agreements (NDA). The contractor shall arrange the signature on all PIEA/non-disclosure agreements necessary to interface with other contractors to accomplish the contract requirements in accordance with FAR 9.505-4 prior to beginning any efforts associated with this PWS. Copies of all non-disclosure agreements required for this contract shall be provided to the Contracting Officer and COR.

1.6.13 SYSTEM SECURITY PLAN

1. System Security Plan and Plans of Action and Milestones (SSP/POAM) Reviews

- a) Within thirty (30) days of contract award, the Contractor shall make its System Security Plan(s) (SSP(s)) for its covered contractor information system(s) available for review by the Government at the contractor's facility. The SSP(s) shall implement the security requirements in Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.204-7012, which is included in this contract. The Contractor shall fully cooperate in the Government's review of the SSPs at the Contractor's facility.
- b) If the Government determines that the SSP(s) does not adequately implement the requirements of DFARS clause 252.204-7012 then the Government shall notify the Contractor of each identified deficiency. The Contractor shall correct any identified deficiencies within thirty (30) days of notification by the Government. The contracting officer may provide for a correction period longer than thirty (30) days and, in such a case, may require the Contractor to submit a plan of action and milestones (POAM) for the correction of the identified deficiencies. The Contractor shall immediately notify the contracting officer of any failure or anticipated failure to meet a milestone in such a POAM.
- c) Upon the conclusion of the correction period, the Government may conduct a follow-on review of the SSP(s) at the Contractor's facilities. The Government may continue to conduct follow-on reviews until the Government determines that the Contractor has corrected all identified deficiencies in the SSP(s).
- d) The Government may, in its sole discretion, conduct subsequent reviews at the Contractor's site to verify the information in the SSP(s). The Government will conduct such reviews at least every three (3) years (measured from the date of contract award) and may conduct such reviews at any time upon thirty (30) days' notice to the Contractor.

2. Compliance to NIST 800-171

- a) The Contractor shall fully implement the CUI Security Requirements (Requirements) and associated Relevant Security Controls (Controls) in NIST Special Publication 800-171 (Rev. 1) (NIST SP 800-171), or establish a SSP(s) and POA&Ms that varies from NIST 800-171 only in accordance with DFARS clause 252.204-7012(b)(2), for all covered contractor information systems affecting this contract.
- b) Notwithstanding the allowance for such variation, the contractor shall identify in any SSP and POA&M their plans to implement the following, at a minimum:
 - (1) Implement Control 3.5.3 (Multi-factor authentication). This means that multi-factor authentication is required for all users, privileged and unprivileged accounts that log into a network. In other words, any system that is not standalone should be required to utilize acceptable multi-factor authentication. For legacy systems and systems that cannot support this requirement, such as CNC

equipment, etc., a combination of physical and logical protections acceptable to the Government may be substituted;

(2) Implement Control 3.1.5 (least privilege) and associated Controls, and identify practices that the contractor implements to restrict the unnecessary sharing with, or flow of, covered defense information to its subcontractors, suppliers, or vendors based on need-to-know principles;

(3) Implement Control 3.1.12 (monitoring and control remote access sessions) - Require monitoring and controlling of remote access sessions and include mechanisms to audit the sessions and methods.

(4) Audit user privileges on at least an annual basis;

(5) Implement:

i. Control 3.13.11 (FIPS 140-2 validated cryptology or implementation of NSA or NIST approved algorithms (i.e. FIPS 140-2 Annex A: AES or Triple DES) or compensating controls as documented in a SSP and POAM); and,

ii. NIST Cryptographic Algorithm Validation Program (CAVP) (see <https://csrc.nist.gov/projects/cryptographic-algorithm-validation-program>);

(6) Implement Control 3.13.16 (Protect the confidentiality of CUI at rest) or provide a POAM for implementation which shall be evaluated by the Navy for risk acceptance.

(7) Implement Control 3.1.19 (encrypt CUI on mobile devices) or provide a plan of action for implementation which can be evaluated by the Government Program Manager for risk to the program.

3. Cyber Incident Response:

a) The Contractor shall, within fifteen (15) days of discovering the cyber incident (inclusive of the 72-hour reporting period), deliver all data used in performance of the contract that the Contractor determines is impacted by the incident and begin assessment of potential warfighter/program impact.

b) Incident data shall be delivered in accordance with the Department of Defense Cyber Crimes Center (DC3) Instructions for Submitting Media available at http://www.acq.osd.mil/dpap/dars/pgi/docs/Instructions_for_Submitting_Me.... In delivery of the incident data, the Contractor shall, to the extent practical, remove contractor-owned information from Government covered defense information.

c) If the Contractor subsequently identifies any such data not previously delivered to DC3, then the Contractor shall immediately notify the contracting officer in writing and shall deliver the incident data within ten (10) days of identification. In such a case, the Contractor may request a delivery date later than ten (10) days after identification. The contracting officer will approve or disapprove the request after coordination with DC3.

4. Naval Criminal Investigative Service (NCIS) Outreach

The Contractor shall engage with NCIS industry outreach efforts and consider recommendations for hardening of covered contractor information systems affecting DON programs and technologies.

5. NCIS/Industry Monitoring

a) In the event of a cyber incident or at any time the Government has indication of a vulnerability or potential vulnerability, the Contractor shall cooperate with the Naval Criminal Investigative Service (NCIS), which may include cooperation related to: threat indicators; pre-determined incident information derived from the Contractor's infrastructure systems; and the continuous provision of all Contractor, subcontractor or vendor logs that show network activity, including any additional logs the contractor, subcontractor or vendor agrees to initiate as a result of the cyber incident or notice of actual or potential vulnerability.

b) If the Government determines that the collection of all logs does not adequately protect its interests, the Contractor and NCIS will work together to implement additional measures, which may include allowing the installation of an appropriate network device that is owned and maintained by NCIS, on the Contractor's information systems or information technology assets. The specific details (e.g., type of device, type of data gathered, monitoring period) regarding the installation of an NCIS network device shall be the subject of a separate agreement negotiated between NCIS and the Contractor. In the alternative, the Contractor may install network sensor capabilities or a network monitoring service, either of which must be reviewed for acceptability by NCIS. Use of this alternative approach shall also be the subject of a separate agreement negotiated between NCIS and the Contractor.

c) In all cases, the collection or provision of data and any activities associated with this statement of work shall be in accordance with federal, state, and non-US law.

2 DEFINITIONS AND ACRONYMS

2.1 DEFINITIONS

BACKBONE TRANSPORT. The communications infrastructure, outside plant cable and electronic equipment, that provides both the physical and logical connection between communications (core and distribution) nodes.

DEFECTIVE SERVICE. A service output that does not meet the standard of performance described within the Performance Specification.

DELIVERABLE. Anything that can be physically delivered but may include non-manufactured things such as meeting minutes or reports.

KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract. Key Personnel are listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal.

LONG LEAD ITEMS. Long lead Items are defined as those items that take sixty (60) or more calendar days to procure/receive due to complex design, complicated manufacturing process, and/or limited production capacity.

LOCAL TIME. Time at reckoned in a particular region or time zone.

PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

2.2 ACRONYMS

Acronym	Term
A&A	Assessment and Authorization
AC	Alternating Current
ACD	Automatic Call Distribution
ACAS	Assured Compliance Assessment Solutions
AHJ	Authority Having Jurisdiction
ANACI	Access National Agency Check and Inquiries
AO	Authorizing Official
APL	Approved Product List
AS	Assured Services
ASR	Asset Shipping Report
ATC	Authorization to Connect
ATO	Authorization to Operate
ATS	Automatic Transfer Switch
AWG	American Wire Gauge
B/P/C/S	Base/Post/Camps/Stations
BAN	Base Area Network
BET	Building Entrance Terminal
BoL	Bill of Lading
BOM	Bill of Materials

Acronym	Term
BTI	Base Telephone Infrastructure
CAC	Common Access Card
CAT I	Category I
CAT II	Category II
CAT III	Category III
CCB	Configuration Control Board
CEC	Continuing Education Credits
CEDC	Component Enterprise Data Center
CFR	Code of Federal Regulations
CI	Configuration Item
CLIN	Contract Line Item Number
CM	Configuration Management
CMDB	Configuration Management Database
CMP	Configuration Management Plan
CN	Core Node
CND	Computer Network Defense
CONOPS	Concept of Operations
CONUS	Continental United States (excludes Alaska and Hawaii)
COPP	Certified Output Protection Protocol
COR	Contracting Officer Representative
CoS	Class of Service
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-the-Shelf
CPD	Capability Production Document
CRM	Comments Resolution Matrix
CS	Cyber Security
CSM	Cyber Security Manager
CSSA	Customer Service Support Application
CST	Cyber Security Technical
CUI	Controlled Unclassified Information
CWDM	Coarse Wavelength Division Multiplexing
DBID	Defense Biometric Identification
DC	Direct Current
DD1149	Requisition and Invoice Shipping Document (Form DD1149)
DD250	Department of Defense Form 250 (Receiving Report)
DD254	Department of Defense Contract Security Requirement List
DEA	Drug Enforcement Administration
DFARS	Defense Federal Acquisition Regulation Supplement
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DLA-DS	Defense Logistics Agency - Disposition Services
DN	Distribution Node
DoD	Department of Defense
DoDIN	DoD Information Network

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Acronym	Term
DoN	Department of the Navy
DSCP	Differentiated Service Code Points
DSX	Digital Signal Cross-Connect
DWDM	Dense Wavelength Division Multiplexing
E911/NG911	Enhanced 911/Next Generation 911
EDP	Engineering Design Package
EFIST	Engineer, Furnish, Install, Secure, Test
EMT	Electrical Metallic Tubing
EOL	End of Life
EOS	End of Service
EPO	Emergency Power Off
ES&D	Enterprise Staging and Deployment
ESL	Enterprise Software License
ESOH	Environmental, Safety and Occupational Health
ETAS	Emergency Technical Assistance Services
EUB	End-user Building
EULA	End User License Agreement
EEVE	Enterprise Engineering and Verification Environment
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FFP	Firm Fixed Price
FISMA	Federal Information Security Management Act
FOUO	For Official Use Only
FSE	Field Service Engineer
FSO	Facility Security Officers
GAT	Government Acceptance Test
GFI	Government Furnished Information
GFP	Government Furnished Property
HIPAA	Health Insurance Portability and Accountability Act
HMX-1	Marine Headquarters Squadron One
HSPD-12	Homeland Security Presidential Directive-12
HVAC	Heating, Ventilating, and Air Conditioning
HW	Hardware
I3A	Installation Information Infrastructure Architecture
I3MP	Installation Information Infrastructure Modernization Program
IAW	In Accordance With
IBC	International Building Code
INFOCON	Information Operations Conditions
iRAPT	Invoice Receipt Acceptance and Property Transfer
ISN	Installation Service Node
ISP	Inside Plant
IT	Information Technology
ITIL	Information Technology Infrastructure Library
IUID	Item Unique Identification

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Acronym	Term
IVR	Interactive Voice Recognition
GFP	Government Furnished Property
JIE	Joint Information Environment
JITC	Joint Interoperability Test Command
JPAS	Joint Personnel Adjudication System
JTR	Joint Travel Regulation
KSA	Key Systems Attributes
LAN	Local Area Network
LCL	Logistic Lifecycle
LCSP	Life-Cycle Sustainment Plan
LOC	Letter of Clarification
LSC	Local Session Controller
LSTDM	Low Speed Time Division Multiplexing
MCCAST v2	Marine Corps Certification and Accreditation Support Tool
MCEN	Marine Corps Enterprise Network
MCCOG	Marine Corps Cyberspace Operation Group
MCSC	Marine Corps Systems Command
MDF	Main Distribution Frames
MPT	Manpower and Training
MOS	Mean Opinion Score
MOS	Military Occupational Specialty
MOSA	Modular Open Systems Approach
MSDS	Material Safety Data Sheet
MUDG	Military Unique Deployment Guide
NACI	National Agency Check with Written Inquiries
NACLC	National Agency Check with Law and Credit
NCA	National Capitol Region
NCES	Net-Centric Enterprise Services
NCI	Network Communications Infrastructure
NDA	Non-disclosure Agreement
NET	New Equipment Training
NIPRNet	Non-classified Internet Protocol Router Network
NIR	Non-Developmental Item Integration Review
NLT	No Later Than
NMCARS	Navy Marine Corps Acquisition Regulation Supplement
NMCI	Navy and Marine Corps Intranet
NOC	Network Operations Center
NSN	National Stock Number
OCI	Organizational Conflict of Interest
OCONUS	Outside Continental United States (includes Alaska and Hawaii)
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
ON	Optical Network
OSP	Outside Plant

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Acronym	Term
OSPDPR	Outside Plant Design and Performance Requirements
OTS	Optical Transport System
PAC	Post Award Conference
PCA	Physical Configuration Audit
PCR	Project Close-out Review
PDU	Power Distribution Unit
PERSEC Office	Personnel Security Office
PESHE	Programmatic Environment, Safety and Occupational Health, and Evaluation
PIA	Privacy Impact Assessment
PIEA	Proprietary Information Exchange Agreement
PII	Personally Identifiable Information
PM	Project Manager
PMM-172	Program Manager Marine, Customer Support and Strategic Sourcing
PMO	Provost Marshall's Office
PM N&I	Program Manager Network and Infrastructure
POA&M	Plan of Actions and Milestones
POC	Point of Contact
PoP	Period of Performance
PP	Protection Profiles
PPSM	Ports, Protocol, Services, and Management
PRS	Performance Requirements Summary
PSI	Personnel Security Investigation
PSR	Project Status Review
PSS	Pre-award Site Survey
PSTN	Public Switched Telephone Network
PUR	Purchaser User Rights
PUR	Product User Rights
QA	Quality Assurance
QAP	Quality Assurance Program
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QoS	Quality of Service
RMA	Return Material Authorization
RMF	Risk Management Framework
ROADM	Reconfigurable Optical Add/Drop Multiplexers
RTM	Requirements Traceability Matrix
RTS	Real Time Service
RU	Rack Units
S-PR	Secret Periodic Review
SAAR	System Authorization Access Request
SAR	Safety Assessment Report
SAT	System Acceptance Test

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Acronym	Term
SDN	Software Defined Network
SEP	System Engineering Plan
SI	System Integrator
SIP	Session Initiation Protocol
SIPRNet	Secure Internet Protocol Router Network
SLA	Software License Agreement
SLIN	Sub-Line Item Number
SON	Statement of Need
SONET	Synchronous Optical Network
SPPN	Special Purpose Processing Node
SBPR	SSBI Periodic Reinvestigation
SSBI	Single Scope Background Investigation
SPPR	SSBI Phased Periodic Reinvestigation
SRG	Security Requirement Guides
SSR	Site Specific Requirements
STIG	Security Technical Information Guide
SURA	Software User Rights Agreement
SW	Software
T&E	Test and Evaluation
TAS	Technical Assistance Services
TCCB	Team Configuration Control Board
TDM	Time Division Multiplexing
TDP	Technical Data Package
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TIM	Technical Interchange Meeting
TMGB	Telecommunications Main Grounding Busbar
TMS	Telephony Management Systems
TOS	Terms of Service
TPN	Tactical Processing Node
TRDP	Technical Review Data Package
TPTCTS	Test Procedures, Test Cases, Test Scripts
TRR	Test Readiness Review
TSO	Technical Support Officer
TTP	Tactics, Techniques, and Procedures
UC	Unified Communications
UCR	Unified Capabilities Requirements
UFC	Unified Facilities Criteria
UID	Unique Identification
UII	Unique Item Identifier
UPS	Uninterrupted Power Supply
VLAN	Virtual Local Area Network
VLRA	Valve Regulated Lead Acid
VoIP	Voice over Internet Protocol

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Acronym	Term
VRF	Virtual Routing and Forwarding
VSS	Verification Site Survey
WAN	Wide Area Network
WAP	Wireless Access Point
WAWF	Wide Area Work Flow
WLAN	Wireless Local Area Network
WSS	Wave Selectable Switch
XMPP	Extensible Messaging and Presence Protocol

3 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

The Government will not be providing any Government furnished property for this contract.

4 CONTRACTOR FURNISHED ITEMS AND RESPONSIBILITIES

4.1 GENERAL

The contractor shall furnish all supplies, equipment, facilities, and services required to perform work under this contract that are not identified in Section 3 of this PWS.

Accountability for all hardware and software is the sole responsibility of the contractor until such time as the Government has performed the final acceptance. All Bills of Ladings (BoLs) and shipping documents shall be provided to the Program Office upon receipt of the shipments. The contractor shall provide the Government with an initial Bill of Materials (BOM) and Configuration Management Database (CMDB) at the Technical Interchange Meeting (TIM). The contractor shall provide a final Material and Equipment List or BOM to the Government prior to the start of Cut-Over to ensure proper and accurate property transfer. The Material and Equipment List/BOM will include, at a minimum, the following fields: name, part number, item description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

The contractor shall coordinate all shipments with the Lead Logistician aboard N&I. The contractor shall mark the equipment in accordance with MIL-STD 130 and provide the Government with a completed Asset Shipping Report (ASR) and Form DD1149 for all new equipment delivered under this contract. The DD1149 Form shall contain, at a minimum, an item description, serial number, part number, unit of issue, quantity received, unit price, and total cost. The contractor shall coordinate a turnover schedule with the gaining command and perform a serialized “item by item” inventory with the Supply Officer, or designated representative, and obtain a signature for the delivery of the equipment. As part of the equipment delivery, the contractor shall provide the final Material and Equipment List.

4.2 MATERIALS EQUIPMENT

The contractor shall provide and deploy all materials and equipment required to transport, install, configure, provision, and test the systems and subsystems delivered under the task and delivery orders in accordance with established industry practices and Original Equipment Manufacturer’s (OEMs) methodologies, procedures, and sustainment support activities.

5 SPECIFIC TASKS

5.1 ENGINEER, FURNISH, INSTALL, SECURE, TEST

The contractor shall be responsible to EFIST and make operational a Regional UC System and a Base Area Network (BAN). Each system shall be completely functional with the required programming, interfaces, hardware, software, software licenses, ancillary equipment, parts, databases, and material for all identified users, services, and requirements. The modernized systems and associated sub-systems shall retain all functionality of the existing systems and provide additional functionality to meet the requirements specified in the site-specific requirements specification. To ensure compliance with all requirements, the contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all identified requirements to the Performance Requirements Summary (PRS). The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, and demonstration) to validate the contractor's proposed system design for Government acceptance. All proposed systems configurations will be baselined in accordance with PM N&I, Configuration Management Plan (CMP). The contractor shall repurpose/reutilize existing equipment to the maximum extent practical based on their solution. In addition, the contractor shall EFIST and make operational any ancillary equipment that is required to support this effort such as grounding, firmware, interfaces, patch panels, applications, and similar equipment necessary to deliver a complete and useable solution.

The contractor shall use, to the greatest extent possible, enterprise software licenses for Commercial Off-the-Shelf (COTS) software products available from the Department of the Navy (DoN) Enterprise Software License (ESL) agreements for any software required to support their proposed solution. The DoN ESL Team is aligned under Program Manager, Customer Support and Strategic Sourcing (PMM-172) as a joint Navy and Marine Corps strategic sourcing effort to consolidate, centralize, and streamline the acquisition and management of DoN ESL Agreements. Enterprise software Licenses agreements are available for the following applications: Microsoft, Oracle, Avaya, Symantec/Veritas, ActivIdentity, CISCO SMARTnet, VWware, Solarwinds, and Red Hat. The contractor will coordinate the use of available enterprise software license agreements with the NCI Program Office after contract award.

The contractor shall be responsible for replacing and correcting any hardware, software, applications, data, configurations, material, or services omitted and/or installed in contractor error without any extra expense or delay to the Government. The contractor shall not be responsible for replacing or correcting existing Government property, software, or facility problems, outside the scope of this PWS.

5.1.1 REGIONAL UNIFIED COMMUNICATIONS

The Regional UC solution shall provide business voice capability to each end-user in those locations where the solution will be deployed. MCB Quantico shall include all Non-classified Internet Protocol Router Network (NIPRNet) users on MCB Quantico, users at Indian Head, MD, Tech Parkway, Quantico Corporate Center, and Barrett Heights in Stafford, VA,. . The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911)

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services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

5.1.2 BASE AREA NETWORK

The BAN consists of a Distribution Layer and an Access Layer. It shall provide for the transportation of voice, video, and data on all locations where the solution will be deployed. There are 8 Area Distribution Nodes (ADNs) located on MCB Quantico; Bldgs. (1999, 24204, 3255, 3300, 2076, 26100, 27282, and Russell Knox). These nodes shall be connected with a Dense Wavelength Division Multiplexing (DWDM) system with a Reconfigurable Optical Add/Drop Multiplexer (ROADM) located at each node. All circuits traversing the installation shall use the DWDM. Circuits shall be transitioned off the SONET network. The BAN shall satisfy the requirements of Section 8. The BAN has no external connectivity but gets core connectivity through the Core Nodes (CNs) and the Installation Gateway.

DWDM technology will provide backbone transport connectivity at MCB Quantico. SONET will be removed.

5.1.3 FACILITY/NODE PREPARATIONS

5.1.3.1 POWER SYSTEMS

The Contractor shall not be required to include power as a feature of their solution, but will identify any necessary power requirements during the VSS in a report to the Government.

5.1.3.2 AUXILIARY INFRASTRUCTURE

Auxiliary Infrastructure is comprised of the equipment and components that supplement the primary systems and subsystems provided in the proposed solution. This equipment consists primarily of equipment racks/cabinets, ladder rack, cable tray, re-enforcing structures, that house the electronic components installed as a part of the overall modernization effort at each DN. All requirements for auxiliary infrastructure will be verified during the VSS.

5.2 CYBERSECURITY

The contractor, in coordination with the NCI Project Manager and NCI Cybersecurity Representative, shall perform all recommended Cybersecurity configuration settings, programming, and configurations of components being provided to ensure compliance with all cyber requirements. At a minimum, the contractor shall provide the following items for Government review: System Configuration Hardware/Software Baseline, Network/Security configurations, Ports, Protocol, Services, and Management (PPSM), system and equipment warranties, software license agreements, software upgrades, and all documentation required to support the Assessment and Authorization (A&A) and Configuration Control Board (CCB) processes. Refer to the Table 2 - Contract Deliverables Matrix for specific Cybersecurity requirements. All products must be current on the DoDIN Approved Product List (APL). The system shall be designed and implemented with hardware/software that is compliant with and fielded in accordance with the Joint Interoperability Test Command (JITC) approved configuration and Military Unique Deployment Guide (MUDG).

5.2.1 JOINT INTEROPERABILITY TEST COMMAND CERTIFICATION

All proposed UC system hardware and software shall have received JITC certification in accordance with the latest version of the DoDI 8100.4, Unified Capabilities before the system can connect to the DoD Information Network (DoDIN). All proposed system hardware and software shall have a valid JITC certification by the Test Readiness Review (TRR). Connection to the DoDIN will not be authorized until certification is updated and the system is fielded in accordance with the certification letter and applicable JITC deployment guides.

Non-certified or expiring JITC certified systems may be proposed provided a road map and Plan of Actions and Milestones (POA&M) is included in the offeror's proposal indicating that JITC certification will be achieved prior to TRR. Additionally, the offeror shall provide a mitigation plan in the event the proposed system does not achieve the required JITC certifications by TRR.

5.2.2 RISK MANAGEMENT FRAMEWORK FOR DoD INFORMATION TECHNOLOGY

Before the proposed hardware and software solution can be connected to the DoDIN via the MCEN, all system hardware, software, and ancillary equipment shall be Cybersecurity compliant IAW the latest version of the technical controls mandated by *DoDI 8510.01, Risk Management Framework (RMF) for DoD Information Technology (IT)*. In addition, the contractor shall assist the Government by providing, developing, and submitting any necessary system documentation, settings, specifications, and hardening (application of Security Technical Information Guides (STIG), vulnerability scans, testing and installing patches, and vulnerability mitigation) required to update the Government Assessment and Authorization (A&A) package and entry into the Marine Corps Certification and Accreditation Support Tool (MCCAST v2). The delivered system will be incorporated to the BAN/LAN Site Accreditation following installation.

5.2.3 SECURITY AND TECHNICAL IMPLEMENTATION GUIDES, SECURITY REQUIREMENT GUIDES, AND ASSURED COMPLIANCE ASSESSMENT SOLUTIONS SCANS

The Contactor shall apply all applicable Defense Information Systems Agency (DISA) STIGs and Security Requirement Guides (SRGs) to all applicable hardware and software. This shall require the contractor to perform system vulnerability scans, system setting adjustments, software updates/patches, or system hardware/software reconfigurations and hardening. The contractor shall provide applicable STIG checklists; vulnerability scans with the DoD-approved Assured Compliance Assessment Solutions (ACAS) scanning tool, and a POA&M with mitigations and estimated completion dates for all open Cybersecurity findings. ACAS Vulnerability findings are defined as Critical/High = Category (CAT) I, Medium = CAT II, and Low = CAT III. STIG findings are defined as follows: CAT I, CAT II, and CAT III. All CAT I vulnerabilities shall be remediated or mitigated. All CAT II/III vulnerabilities must be remediated if a patch is available and STIG/SRG settings are configured without affecting system functionality. If a patch/STIG/SRG setting is not available or affects operational functionality, an acceptable mitigation (i.e., current processes or measures that reduce vulnerability exposure) must be provided in the POA&M with recommended completion dates.

All ACAS scans will be accomplished using the DISA Field Security Operations (FSO) scan policy Government Furnished Information (GFI) and latest ACAS plugin definitions available on the DoD Patch repository at the time scans are conducted. Contractor shall ensure all ACAS scans are

completed with proper credentials and IAW the latest policies and guidelines as defined by DISA and/or the U.S. Marine Corps. All automated and manual STIG/SRG settings shall be applied.

5.3 CONTRACT PROJECT PHASES

The accepted Request for Proposal (RFP) design constitutes the Conceptual Design baseline and is the starting point for every contract project.

This section identifies the Project Phases and Project Milestones/Reviews associated with this contract. These milestones include, but are not limited to, all the system technical reviews and audits ensuring the engineered design satisfies the PRS outlined in Part 8 of the PWS, Site Specific Requirements, and NCI Systems Engineering Plan (SEP). This timeline represents “Tailored Conformance” to meet a Systems Engineering Approach as directed by DoD guidance. The contractor’s Contract Schedule shall include, at a minimum, all of the events identified in this section, beginning with Site Task Award, to mitigate potential adverse impacts to cost, performance, and schedule.

The NCI Contract Notional Timeline depicted in Figure 1 identifies the sequence of events for the contract.

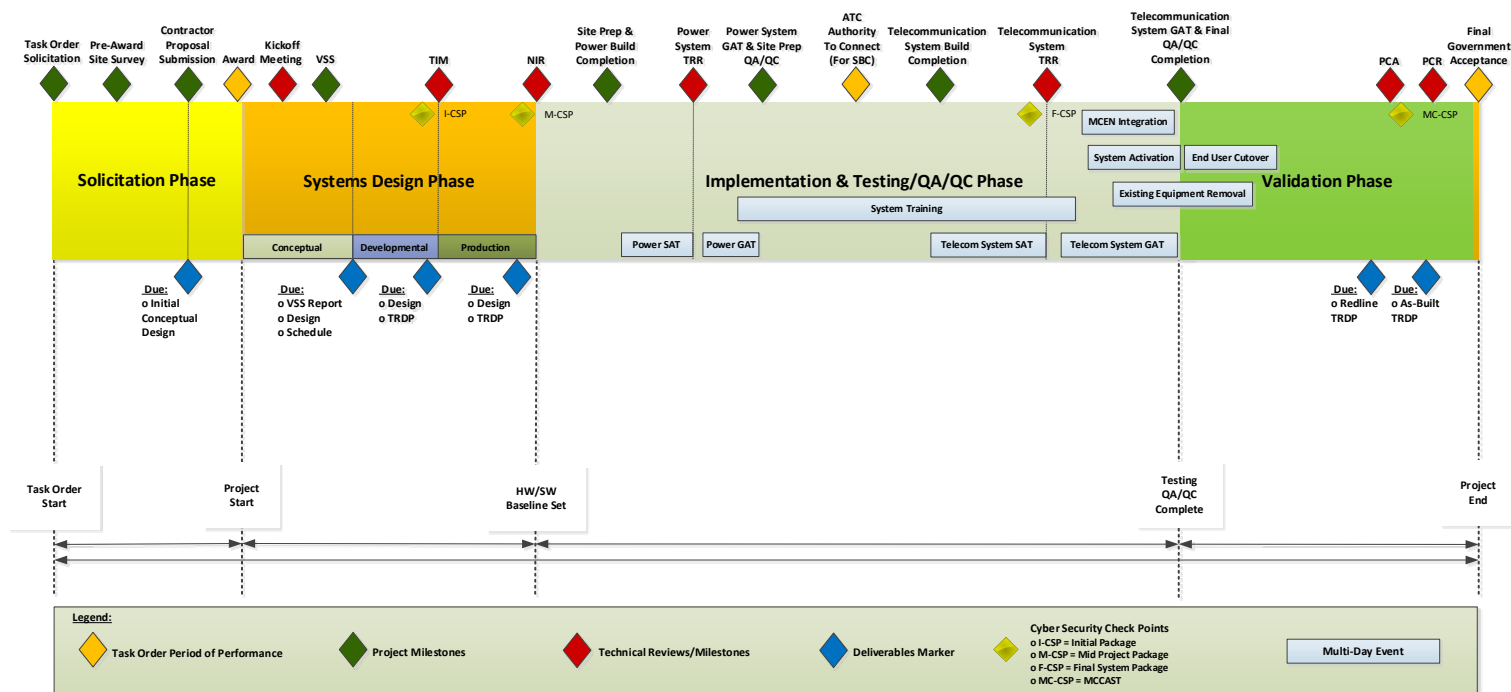


Figure 1 – Notional Timeline

5.3.1 PROJECT MILESTONES AND EVENTS

The Notional Timeline depicted in Figure 1 coincides with the expected Contract events beginning with the Contract Solicitation. Mapping these design stages to NCI programmatic, Implementation Phases are as follows.

5.3.1.1 CONTRACTOR PROPOSAL SUBMISSION

The contractor shall submit a proposals within 30 calendar days from receiving the Request for Proposal from the Government. The proposal shall contain the contractor's proposed conceptual design and architecture, pricing, materials and equipment list, project plan, and project timeline including all the events identified in the notional timeline (durations, dates, and the proposed period of performance).

5.3.1.2 SYSTEM DESIGN PHASE

The System Design Phase is initiated with the Award, signifying the start of the period of performance. Subsequent to the Award, the Government shall hold a Post Award Kick-off meeting. This Phase shall also include a contractor Verification Site Survey (VSS) to validate assumptions made on the information provided as part of the PWS. Throughout the duration of this Phase, the contractor shall deliver a detail system design and Technical Data Package (TDP) to be reviewed at designated technical reviews.

The contractor shall also deliver Cybersecurity documentation prior to the associated technical review events IAW the timelines identified in Table 2 - Contract Deliverables Matrix.

Table 2 – Contract Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Project Schedule	Proposed: fifteen (15) Calendar Days after the start of the VSS Monthly: NLT the last day of every month (Ad hoc Project Schedule Reports may be Requested)	MS Project 2016 and PDF
2	Conceptual (Proposed) Design	Revised: NLT 15 (15) calendar days after the VSS	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF
3	Verification Site Survey Report	NLT fifteen (15) calendar days after the VSS.	VSS Report: Contractor Format (PDF or Microsoft Office Word 2016 or later)
4	Technical Data Package	Developmental: NLT fifteen (15) calendar days prior to the TIM. Production: NLT fifteen (15) calendar days prior to the NIR. Red Line: NLT the completion of Cutover. As-Built: NLT fifteen (15) calendar days prior to the PCR.	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF M&E List: Microsoft Office Excel 2016 or later HW/SW Baseline: Microsoft Office Excel 2016 or later
5	RTM	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
6	SAT Plan	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
7	ACAS Scans Schedule	Initial: NLT fifteen (15) calendar days prior to the TIM. Final: NLT fifteen (15) calendar days prior to the NIR.	Contractor Format (PDF and Microsoft Office Project 2016 or later)
8	Cyber Security POA&M	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the Telecommunications Systems TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
9	Technical Controls	Initial: NLT fifteen (15) calendar days prior to the TIM.	Contractor Format (PDF or Microsoft Office Excel 2016 or later)

Item Number	Item Title	Due	Deliverable Format
		Revised: NLT fifteen (15) calendar days prior to the NIR.	
10	Safety Assessment Report (SAR)	NLT fifteen (15) calendar days prior to the NIR.	Contractor provided format (PDF and Microsoft Office Excel 2016 or later)
11	Site Prep TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
12	Telecommunications TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
13	Cutover Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
14	IUID Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
15	STIG/SRG Check List	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	Native format
16	ACAS Vulnerability Scans	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	.nessus File format
18	Completed Telecommunications System TPTCTS	NLT ten (10) calendar days after the Telecommunications System GAT.	Government provided format (Microsoft Office Word 2016 and PDF)
19	Warranty Procedure Guide	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
20	Installations, Operations and Maintenance, and SW User Manuals	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
21	MCCAST Import Template	Current: NLT fourteen (14) prior to the PCR	Native format
22	Asset Shipping Report	An ASR shall be provided with each equipment shipment to ES&D.	Government-provided Format (Microsoft Office Excel 2016 or later)

The System Design Phase consists of three design levels: Conceptual, Developmental, and Production. (Reference Section 5.7.1.1 – Product Drawings and Associated Lists)

Conceptual Design provides the framework for the allocated baseline by defining the system and subsystem architectures and is delivered or established at proposal. The design shall include hardware and software lists, depiction of critical support system interfaces and any underlying services architectures as well as identification of all system CNs, DNs, and EUBs to ensure that the proposed system has an expectation of being operational, feasible, and satisfies the site-specific requirements.

Developmental Design describes the integration approach and is used to evaluate and validate that the design meets the required performance. This information is used to produce materiel for test and for the analytical evaluation of the inherent ability of the design approach to attain the required performance. This design level shall include but not limited to any updates associated with the Conceptual Design, all impacted building floor plans (both top and elevation views), wire, fiber, power, and grounding routing details, all rack/cabinet and ladder tray drawings. These design components shall be delivered prior to the Technical Interchange Meeting (TIM) for technical review and adjudication.

Production Design is a detailed and complete design that captures any updates to the Conceptual and Developmental Designs and shall include but not limited to all components, recommended spares, and applicable repair parts. The production design shall also include all applicable detailed wiring and cabling schematics. These design components shall be delivered prior to the Non-Developmental Item Integration Review (NIR) for technical review and adjudication.

5.3.1.2.1 AWARD KICK-OFF MEETING

The Kick-off meeting shall be a review and discussion of the documents provided in the contractor proposal submission and provide a forum for both the Government and contractor to reach consensus on all project implementation expectations. Government will provide applicable deliverable templates to contractor. The contractor shall deliver their proposed project schedule at the kickoff meeting.

5.3.1.2.2 VERIFICATION SITE SURVEY

The contractor shall proceed to the place of performance to conduct a Verification Site Survey (VSS) within twenty (20) calendar days of Contract Award. The purpose of the VSS is to provide the contractor(s) an opportunity to validate assumptions made on the site information provided in the PWS. Coordination of the VSS visitation shall be facilitated by the NCI Project Manager, the contractor, and the site TSO. The VSS Report, Revised Conceptual (Proposed) Design, and the Baseline Project Schedule shall be provided to the Government IAW the criteria and timeline identified in Table 2 - Contract Deliverables Matrix. The VSS Report shall provide an accurate description of the existing conditions and identify any potential discrepancies or changes to the proposed design. Upon Government review and acceptance, authority to proceed to Developmental Design shall be granted and the Baseline Project Schedule established.

5.3.1.2.3 TECHINICAL INTERCHANGE MEETING

The TIM is an informal meeting that fosters the exchange of ideas through open discussion and participation. The purpose of the TIM is to provide a forum for problem solving and information sharing between Government and contractor personnel that encourages cooperation and fosters

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collaboration in resolving technical and engineering deficiencies and/or discrepancies. TIMs are to be conducted when necessary as determined by the COR/Project Manager. The contractor shall conduct at least one on-site TIM at the place of performance to adjudicate the results of the Government's review of the Developmental Design.

5.3.1.2.4 NON-DEVELOPMENTAL ITEM INTEGRATION REVIEW

An NIR is a multi-disciplined product and process assessment to ensure the system under review can proceed into the Implementation & Testing and Quality Assurance (QA)/Quality Control (QC) Phase. This review assesses the TDP artifacts and reviews the Production Design. The contractor shall participate in a Government lead NIR IAW the NCI SEP. The NIR is a formal milestone review requiring Government acceptance. Successful completion of the NIR will establish the product baseline. The contractor shall demonstrate that the Detailed Design satisfies the specifications identified in the Contract Solicitation and the Site Specific Requirements (SSR). The contractor shall present a test and system cutover for the purpose of performing design verification and validation. The contractor shall also prepare and provide a Safety Assessment Report (SAR). The SAR shall identify the contractor's mitigation of any safety and environmental hazards identified in the NCI Programmatic Environment, Safety and Occupational Health, and Evaluation (PESHE).

5.3.1.3 IMPLEMENTATION, TESTING, AND QA/QC PHASE

The Implementation, Testing, and QA/QC Phase shall begin with the acceptance of all deliverables associated with the NIR milestone. The contractor shall execute the system build to the accepted Production Design, beginning with Site Preparation and Power System installations, followed by installation and integration of the telecommunications systems components. The contractor shall provide continuous oversight of all subordinate contractors in accordance with all aspects of program management.

5.3.1.3.1 SITE PREPARATION BUILD COMPLETION

This milestone incorporates the procurement and installation of all required system infrastructure, including, but not limited to, system racks, cabinets, and ladder racking. Upon completion of this milestone, the contractor shall ensure the installation complies with all local and regulatory requirements.

5.3.1.3.2 SYSTEMS ACCEPTANCE TEST AND GOVERNMENT ACCEPTANCE TEST

Test and Evaluation (T&E) is an integral part of the systems engineering process. System/Subsystem Testing demonstrates the delivered solution fulfills the requirements and specifications of the PWS. Testing shall be performed in two phases, the System Acceptance Test (SAT) and the Government Acceptance Test (GAT). Separate SAT/GAT events will be performed for Telecommunications systems. SAT shall be contractor-performed testing that occurs prior to TRR. The Government will observe the SAT.

It is expected that the contractor shall install and test system/subsystem components without connection to the DoDIN/MCEN. As a result, the contractor may not be able to complete all required system and sub-system testing during SAT. It is expected that systems and subsystems requiring MCEN connection are hardened. The GAT leverages the final SAT documents provided by the SI to determine testing that demonstrates system-wide functionality of hardened devices. The government

will attend any contractor(s) scheduled SAT testing events to ensure test data integrity. GAT will be the final test event and all connections and interfaces shall be established during this time.

5.3.1.3.3 TEST READINESS REVIEW

The TRR is a significant multi-disciplined technical review designed to ensure the system and/or subsystem under review is ready for Government testing and functions as the transition from SAT to GAT. The TRR assesses test objectives, test methods and procedures, test scope, and safety to confirm required test resources have been properly identified, made available, and coordinated to support planned tests. The TRR verifies the traceability of planned tests through the use of the RTM. It determines the completeness of test procedures and their compliance with test plan descriptions. The TRR also assesses the system under review for development maturity, cost/schedule effectiveness, and risk to determine readiness to proceed to formal testing.

5.3.1.4 VALIDATION PHASE

The Implementation Phase shall transition into the Validation Phase upon successful completion of the Telecommunications System GAT and the final QA/QC inspection.

5.3.1.4.1 CUTOVER

Cutover is the process of migrating existing circuits and end-user services (voice and data) from legacy systems to the newly installed contractor-provided solution. The contractor shall develop a detailed Cutover Plan to support cutover. The Cutover Plan shall provide the approach, schedule, required Government resources, system outages, and fall back plan.

The contractor shall be responsible for performing a flash cutover, unless deemed impractical due to technical, logistical, or base operational constraints, of all services identified in this document. This shall include capturing and validating existing system's database and subscriber information, transferring information, configuring, and deploying the new system to the end-user device. This information includes, but is not limited to, dial plans, subscriber features and capabilities, call lists, settings and configurations. The cutover shall also include hardware and patching of existing subscribers and services inside the closets and at the end user locations. Cutover methods utilized shall minimize service-affecting outages and be described in detail in the Cutover Plan.

The contractor shall conduct service-affecting cutovers of systems outside normal duty hours with minimal downtime as designated by the TSO. During system cutover, the contractor shall establish, staff, manage and support all on-site help desk functions and responsibilities to include customer calls, creating trouble tickets and logs, tracking reports for active and closed tickets, answering subscriber questions and correcting deficiencies, and coordinating with the TSO to prioritize trouble tickets. An electronic and paper copy of the Trouble Ticket Log shall be maintained on-site for Government inspection during cutover. The Trouble Ticket Log shall be turned over to the Government after resolution and closure of all Trouble Tickets directly attributable to the contractor's solution.

5.3.1.4.2 SYSTEM OUTAGES

Any work requiring system downtime shall occur during off-duty/weekend hours, be kept to a minimum, and not occur without specific acceptance from NCI Project Manager and the site TSO. The contractor shall submit a system recovery/fallback plan for review and acceptance for all scheduled outage. The system recovery/fallback plan shall be provided as part of the Cutover Plan.

5.3.1.4.3 REMOVAL OF EXISTING EQUIPMENT

Upon Government approval, the contractor shall decommission, disconnect, de-install, dismantle, and remove all displaced core switching equipment. . The contractor shall remove any system anchors, brackets, and racks protruding from the floors and/or walls. The contractor shall ensure that no active service is disrupted during the switch or equipment removal and shall be liable for any costs incurred by the Government to restore disrupted service. All replaced core switching equipment shall be removed and properly disposed of by the contractor.

Existing equipment identify by the Government for reuse and redistribution will be turned over to the Program Office upon removal. Disposal of all equipment shall be coordinated through the TSO and the Installation's Defense Logistics Agency - Disposition Services (DLA-DS) to ensure compliance with Government disposal procedures. The contractor shall provide the Government with a document identifying all replaced core switching equipment. At a minimum, the following fields shall be included: name, part number, description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

5.3.1.4.4 PHYSICAL CONFIGURATION AUDIT

The Physical Configuration Audit (PCA) shall be conducted to determine conformance of the as built configuration to the product baseline with the TDP. The PCA shall be a joint audit conducted by the contractor and Government. The results of the audit shall be documented by the contractor and adjudicated by the Government before Project Closeout Review (PCR) for inclusion in the As-built TDP.

5.3.1.4.5 PROJECT CLOSEOUT REVIEW

The Project Closeout Review (PCR) shall be conducted to verify all project requirements have been satisfied, all deliverables have been submitted to the Government, and all Government administrative actions have been completed.

5.4 PROJECT ADMINISTRATION/MANAGEMENT

5.4.1 PROJECT PLAN

The contractor shall establish, deliver, and ensure that a Project Plan remains in effect throughout the project period of performance. At a minimum, the Project Plan shall focus on and align with the Project Schedule. The Project Plan should address areas such as Safety, Configuration Management, and Risk Management. The Project Plan shall clearly demonstrate an understanding of the project timeline and associated milestones for the project and how the contractor plans to satisfy the requirements of the PWS. The Project Plan shall address a management approach and highlight actions that will be taken to mitigate risk to cost, schedule, and performance, highlight any possible positive or negative impacts, and provide details on the process to deal with unforeseen site conditions, schedule slips, or other problems of program risks. The Plan shall describe the contractor's approach to Resource Management and shall identify the project team.

5.4.2 PROJECT SCHEDULE

The contractor shall deliver and maintain an accurate and up-to-date project schedule that accurately reflects the current status of the project progress and resources. To ensure proper management and accuracy of the project schedule, the contractor shall coordinate and consult with relevant stakeholders throughout the course of the project. The project schedule shall include all significant events, detailing each sequence of work that should be completed, identify major milestones and tasks from start to completion of the project, as well as include all critical path events. At a minimum, the project schedule shall identify the following columns: Start, Finish, Baseline Start, Baseline Finish, Duration, and Percent Complete for each task, to include the associated task paths (successors, predecessors, etc.). The contractor shall deliver the proposed Project Schedule within twenty (20) calendar days after the start of the VSS. The Government will then have fifteen (15) calendar days to review and coordinate with the contractor any necessary corrections and updates in order to establish a baseline schedule. The accepted project schedule will then become the baseline and will not change throughout the duration of the project, except in the event of contract modifications that impact the project schedule (scope increase/decrease, etc.).

The contractor shall reference and adhere to the guidance in the NCI Schedule Management Plan.

5.4.3 MEETINGS

The contractor shall plan, host, attend, coordinate, support, and conduct meetings, formal reviews, conferences, and audits required during the period of performance of this contract. Meetings shall be conducted at either Government or contractor facilities, or via conference call/video teleconference. The contractor shall prepare agendas and meeting presentation materials for each meeting. The contractor shall also provide minutes and reports following each meeting. The minutes must include a summary of all action items, dates assigned, responsible parties, and estimated completion dates of testing.

5.4.3.1 PROJECT STATUS REVIEW MEETINGS

The contractor shall plan, host, coordinate, and conduct a Project Status Review (PSR) each week throughout the period of performance for the purpose of reviewing and updating the Government on the current status of the project. To support the administration and management of the Weekly PSR, the contractor will provide a Meeting Agenda, Action Items List, and Project Schedule two (2)

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calendar days prior to the execution of the Weekly PSR. In addition, the contractor shall provide meeting minutes NLT two (2) calendar days after the PSR.

The Meeting Agenda will address, at a minimum, the following areas of concern:

1. Introductions/Documentation of Attendance
2. Summary of Week's Activities
 - a. Issues encountered and resolutions taken to address
 - b. Issues encountered and still unresolved
 - c. Completed activities for the week
3. Activities Planned for the following week
4. Overall Project Status Review
5. Action Item/Register Review
6. Review Deliverables Status
7. Review any changes to the TDP and Design Drawings (Redline Drawings)
8. Materials Status
 - a. Discuss preformed Quality Reviews and the results
9. Coordination Resolution of any identified deficiencies
10. Discussion of Upcoming Significant Events; possible issues and mitigations (as needed)
11. Project Schedule Review relative to the Baseline Project Schedule for thirty (30) calendar days before and thirty (30) calendar days after the PSR
12. Coordinate any staffing updates to the project team(s)
13. Additional Questions/Open Forum
14. Meeting Summary/Assigned Action Item Review.

An Action Item List shall be maintained and delivered as part of the contractor's weekly progress. Closed action items shall only be presented one time. The Action Item List shall contain the following tabs at a minimum:

1. Meeting Attendees
2. General
3. Site Prep
4. Data
5. Voice

6. Schedule Review
7. Deliverable Review
8. Closed
9. Risk Log
10. Personnel
11. Shipping
12. Damage Incident Log
13. Stakeholder Contact Info
14. Risks Matrix

5.4.4 QUALITY CONTROL

The contractor shall develop and maintain an effective quality control program to ensure services are performed in accordance with this PWS. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The contractor's quality control program is the means by which he assures himself that his work complies with the requirement of the contract. The contractor shall provide a written Quality Control Plan (QCP) with the IDIQ proposal. Any changes arising from this effort will be incorporated into any subsequent award. Post-award changes to the QCP shall be submitted to the Contracting Officer and COR within five (5) calendar days of the affected change. The Contracting Officer will provide written acceptance of any proposed changes after delivery of the revised QCP. In addition, the contractor shall incorporate the following minimum elements into the QCP.

- Definition of contractor quality control management lines of responsibility
- Quality Control Management System Process
- Internal Design Review/Change Control Process
- Internal Document Control Process
- Process for Testing
- Process for the execution of Corrective Actions
- Process for maintaining Quality Assurance records throughout the project lifecycle
- Process for performing random internal Quality Control audits.

5.4.4.1 QUALITY ASSURANCE

The Government will evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP). This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable quality levels. The contractor shall provide an assessment detailing their conformance to both the technical and programmatic management of the contract.

5.5 LOGISTICS SUPPORT

The contractor shall provide dedicated logistic support to plan and coordinate efforts that integrate logistics and life cycle support considerations into the design of the system. The effort shall be conducted as an integral part of the development, integration, and test processes to define the range and depth of the required support, to develop supportability data products, and to address all applicable elements of logistics.

5.5.1 LOGISTICS MANAGEMENT

A joint Government/contractor coordination shall be established to monitor the status of the program implementation. The coordination will be conducted to address logistic matters, schedules, warranty, and PWS performance. The Government will oversee and monitor the contractor's implementation of applicable logistics elements during the project period of performance and throughout the warranty period. The Government has the right to request status of what's in place in and in storage at any time during the contract.

5.5.2 ITEM UNIQUE IDENTIFICATION

The contractor will develop an Item Unique Identification (IUID) Plan and implement specific IUID markings, in accordance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.211-7003, DFARS 252.245-7001, SECNAVINST 4440.34, MIL-STD-130N to include recommendations for marking of spare assemblies and subassemblies, components, and parts below \$5,000 and highly pilferable to include recommendations for marking of spare assemblies, subassemblies, components, and parts below \$5,000. The Government shall make the final determination for IUID marking of items below \$5,000. All spare parts, secondary repairable items, and consumables that exceed \$5,000 and Government selected items under \$5,000 will be marked with the item IUID prior to delivery to the Government. The IUID marking shall be incorporated into existing data plates when possible. Bar coding and the two dimensional IUID data matrix shall be machine-readable with common optical scanning devices and be accompanied by the corresponding human readable markings when practical. All 2D data labels shall be permanently affixed and shall ensure its readability during normal operational use. The plan shall also describe the marking process and identify marking locations for each item identified. The contractor will identify the location of approved IUID markings within all drawings.

The contractor will load all IUID data into the DoD IUID Registry NLT fifteen (15) calendar days after completion of the PCA. Additionally, the contractor shall load all serial items to include IUID data into invoice Receipt Acceptance and Property Transfer (iRAPT) formally known as Wide Area Work Flow (WAWF). The contractor will provide an IUID Marking Activity and Verification Report for each system and spares delivered to the Government. The IUID Marking Activity and Verification Report will include a listing of all IUID assigned numbers by Contract Line Item Number (CLIN), Sub-Line Item Number (SLIN), or Exhibit Item and contain the model number, part number, serial number (if applicable), and parent/child relationship.

5.5.3 PARENT END ITEM DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI data plate. The Parent End Item 2D matrix shall contain human and

machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. The minimum data plate information for NCI Parent End Items are as follows:

1. Nomenclature
2. NSN (if available)
3. Design Activity: (MFR ID Cage Code)
4. Serial Number
5. Government Ownership Designation: U.S. Property
6. Contract Number
7. Two-dimensional IUID data matrix
8. Unique Item Identifier (UII).

5.5.3.1 SUB ASSEMBLY DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI sub-assembly data plate. The Sub-Assembly 2D matrix shall contain human and machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. All applications must be permanently affixed, as well as human and machine-readable when the necessary space is available. For sub-assembly items that do not currently utilize a data plate, the contractor will refer to MIL-STD-130N to develop best business practices for a display of the data elements below. The IUID data plates shall display the following minimum information:

1. NSN (if available)
2. Part Number
3. Serial Number
4. Manufacturer Cage Code
5. 2-dimensional IUID data matrix
6. Unique Item Identifier.

5.5.4 WARRANTY

The contractor shall provide a full, unlimited one-year warranty for all contractor provided hardware/software, materials, and workmanship. The warranty shall begin immediately upon Final Government Acceptance of all items delivered under this contract.

The contractor shall establish and maintain a warranty performance system that identifies and documents all items to be warranted under this contract. Each item warranted shall be indexed and identified by serial number, model number, part number, Unique Identification (UID), warranty period, Original Equipment Manufacturer (OEM), and date of acceptance by the Government. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each item shall be provided to the Government in the form of a Warranty Procedures Guide and shall be maintained by the contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and made available for Government review upon request or during scheduled meetings and/or reviews throughout the life of all warranted items used in all production phases of the NCI Program.

All costs for shipping and handling for warranted items from and to the field activity are the responsibility of the contractor. The warranty period will cover all hardware, software/firmware, materials, installation services, applicable Software (SW)/Cyber Security (CS) updates, and workmanship provided for the overall system design solution. Hardware/Equipment warranty will include repair and return services for all hardware/equipment replacement that will be configured with software/firmware and ready to install upon receipt.

5.5.5 ENVIRONMENTAL SAFETY AND HEALTH

5.5.5.1 SYSTEMS SAFETY

The contractor shall identify all hazardous material associated to the newly installed equipment and deliver the applicable Material Safety Data Sheet (MSDS) to the Government. The contractor shall identify and evaluate safety and health hazards and define risk levels that manage the probability and severity of all hazards associated with development, use, and disposal of the system in accordance with MIL-STD-882D. Residual risks will be evaluated by the Government in accordance with Tables A-I through A-IV of MIL-STD-882D and reviewed for acceptance or further risk mitigation action IAW the PESHE.

5.6 GREY MARKET ITEMS, LICENSE TRANSFERABILITY, AND END USER TERMS AND CONDITIONS

In order to minimize the risk of the Government purchasing counterfeit products or unauthorized secondary market equipment, which would not be supported by the OEM, and to ensure that the Government purchases only equipment that is genuine (i.e., not counterfeit), authorized (e.g., not gray market, includes appropriate licenses, etc.), and supported (e.g., warranty and support services) by the OEM, when it submitted its proposal, the contractor, for:

Hardware: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of the proposal and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor warrants that all products provided under this contract are new. By submitting any proposal under this contract, contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of contract award. Contractor agrees that it will provide a list of serial numbers for any hardware provided or installed. Failure to provide this information may result in delays to acceptance and payment. The Government will use this information to confirm with the Manufacturer or OEM that the hardware is (1) genuine (not counterfeit) and (2) authorized hardware that has been sourced and provided in accordance with the Manufacturer's applicable policies (e.g., not gray market or diverted). If the Manufacturer indicates that the hardware meets these two requirements, the Government will notify the contractor. If the Manufacturer indicates the hardware does not meet these two requirements, the Government may reject the hardware, revoke acceptance, or pursue any other available and appropriate remedies under the contract.

Software: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of award and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in

accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor shall warrant that all products are new, or, in the case of downloadable software, that all software is sourced from the OEM or Authorized Reseller. By submitting its proposal contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of this contract. Contractor shall certify that it has notified the software Licensor that the United States Marine Corps (Buyer) will be the Licensee. Contractor shall have provided, with any proposal, a copy of the End User license Agreement (EULA), Terms of Service (TOS), or other similar legal instrument or agreement and warrants that all Manufacturer software is or will be licensed originally to Buyer as the original Licensee authorized to use the Manufacturer Software. Note the provisions of FAR 52.212-4(u) apply.

Maintenance: If, during performance of any maintenance required under this contract, the contractor provides replacement hardware or software, then the above Hardware, Software, or both requirements, including all required certification and compliance requirements, apply. The contractor shall ensure that the Government shall have full rights and entitlements to any software maintenance procured under this contract for software for which it has been identified as the original licensee or for which a license is subsequently transferred to the Government.

Hardware, Software, and/or Maintenance: If the contractor is not a Manufacturer Authorized Partner as of the date of the submission of its proposal then, as applicable, contractor shall submit with its proposal a document, from the Manufacturer, that identifies the Vendor by name and states the following:

- (1) That the products proposed (including hardware, software, and/or support services) are genuine (i.e., not counterfeit and not unauthorized secondary market/gray market products) (note: all items, including part numbers where applicable, shall be listed in the document);
- (2) That contractor has the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, in accordance with the applicable Manufacturer certification/specialization requirements;
- (3) That contractor will be able to receive from Manufacturer, and that Manufacturer will not deny, the support services required to support the product(s);
- (4) That contractor has the authority to transfer to the Government all appropriate software licenses associated with the product(s) at no additional cost to the Government; and
- (5) That Manufacturer will not deny required warranty support for the product(s).

The Government's remedies for the contractor's failure to provide conforming products or services consistent with the above requirements are detailed in FAR 52.212-4, with emphasis on paragraphs (a), (m), and (u).

This contract contains the clauses, terms, and conditions acceptable to the Government. Any hardware, software, or maintenance provided under this contract that contains conflicting terms or conditions, including but not limited to an EULA, Software License Agreement (SLA), Purchaser User Rights (PUR), Product User Rights (PUR), Software User Rights Agreement (SURA), Support Agreement, Maintenance Agreement, or any other vendor or OEM-specific agreements regardless of how titled or described, may be considered unacceptable. The contractor is on notice that if they

choose to submit a document containing terms and conditions, they are required to demonstrate that those terms and conditions do not conflict with, or differ from, this contract's terms and conditions, as well as any statute or regulation (e.g., FAR and DFARS). The contractor must provide the Government with an opportunity to review, modify, and approve any relevant EULA, SLA, SURA, PUR, or any other similar OEM-specific agreement, related to items procured under this contract for which the Government will be the licensee or will otherwise take title to. Compliance with this section is a component of technical acceptability for any proposal and for final project acceptance. Vendor-specific or OEM-specific terms and conditions that conflict with statutory or regulatory requirements, or are otherwise disadvantageous to the Government as noted above, may be determined unacceptable.

5.7 DELIVERABLES

5.7.1 TECHNICAL DATA PACKAGE

The contractor shall develop a TDP that contains Engineering Design Plan (EDP), design specifications, and drawings describing and depicting the solution and configuration of all systems and subsystems delivered in support of MCB Quantico's Contract. The review and acceptance process for all design specifications and drawings include a Conceptual Design data package, Developmental Design data package, Production Design data package, Redlines Drawings and As-Built Drawing package. The format for the TDP will be provided to the contractor by the Government at the Contract Kickoff meeting. The TDP shall consist of the Engineering Design Plan, Engineering Design Drawings, Systems Configuration Hardware/Software Baseline (CMDB File), and Materials and Equipment List to include Long Lead Items List. All increments of the TDP shall be delivered in accordance with the timelines identified in Figure 1 and the criteria outlined in Part 8, Technical Exhibit 2, Deliverables Schedule and IAW MIL-STD 31000B, ASME Y14.100, ASME Y14.24, ASME Y14.35M, and ASME Y14.34M.

The contractor shall document all design modifications and/or revisions to the accepted Production Design Data TDP via an ECP IAW the CMP. The ECP shall include updated the Red-line Engineering Design Package that accurately depicts the proposed engineering change. Revisions to the Redline drawings shall be provided every thirty (30) calendar days and previous drawing revisions implemented to produce an updated version. The Redline TDP will be used to perform the Physical Configuration Audit (PCA). Any changes to the redlined drawings and/or CMDB file will be recorded during the Physical Configuration Audit (PCA) and documented in the As-built TDP. The contractor shall provide the As-built TDP at the completion of the project at the Project Closeout Review (PCR) and incorporate all design changes and modifications performed during the implementation.

The contractor shall deliver a Draft CMDB File along with all other required artifacts of the TDP IAW Figure 1 - Contract Notional Timeline as part of the Technical Review Data Package for the Technical Interchange Meeting (TIM), that contains all relevant information about the hardware and software/firmware components provided in the accepted engineering design and the relationship between those components. The contractor shall deliver the Final CMDB file along with all other required artifacts of the TDP as part of the TRDP for the NIR. The CMDB provides an organized view of configuration data and a means of examining that data from multiple perspectives. The CMDB File shall identify all Configuration Items (CIs) delivered under this contract and the associated information and the interface between system components.

As part of the Materials and Equipment List, the contractor shall provide the OEM recommended minimum essential spare parts for DWDM equipment and systems provided under this PWS in order to alleviate system downtime in the event of a critical DWDM hardware failure. The minimum essential DWDM spares shall be identified separately in the Materials and Equipment List. The contractor shall restock any spare DWDM parts utilized during the modernization effort and warranty period.

5.7.1.1 PRODUCT DRAWINGS AND ASSOCIATED LISTS

The contractor shall develop and deliver a TDP with the associated lists and artifacts describing and detailing the installation and configuration of all systems and subsystems delivered in this contract. This process may require the revision and update of existing drawings, and/or development of new drawings to meet the requirements of TDP drawings and associated lists. Only FINAL versions of the Conceptual, Developmental, Production, Redline, and As-Built data packages will be considered for acceptance by the government and represent fulfillment of the deliverable requirements. Existing, revised, new product drawings, and associated lists shall be used as the engineering data for procuring, controlling, using materials, parts, and assemblies whether produced in-house or supplied by the contractor. The drawings shall be used for the manufacture, assembly, provisioning, inspection, testing, and Configuration Management (CM) of the materials, parts, modules, subassemblies, assemblies, and product baseline of the hardware and software delivered in this contract. The TDP and associated lists shall not carry any proprietary markings. The contractor shall provide the necessary design, engineering, manufacturing, and quality assurance requirements necessary to enable the procurement or manufacture of an interchangeable item that duplicate the physical and performance characteristics of the original product. This must be accomplished without any additional design engineering effort or recourse to the original design activity.

1. The contractor shall comply with MIL-STD-3100B, "Technical Data Packages".
2. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
3. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
4. The contractor shall comply with the ASME Y14 Standards and lessons learned to improve the use of the Title Block, Revision Block, Sheet Numbering, and add Parts Lists and a Master Parts List Drawing Type.
5. The contractor shall comply with Installation Design Plan (IDP) drawing codes. (shown in Table 3).

Table 3 – Engineering Design Drawing List

IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
DT	DT	Drawing Tree	D, P, RL, AB
000	000	Functional Interface Diagram (Architecture Drawings)	D, P, RL, AB
010	000	Site Master Index	D
020	200	Installation Master Drawing	D, P, RL, AB
022	100	Master Parts List	D, P, RL, AB

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IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
023		Technical Data Summary	D, P, RL, AB
040	400	Floor Plans and Elevations	D, P, RL, AB
050	400	Antenna Layouts and Elevations	D, P, RL, AB
060	500	Simplified Block Diagrams	D, P, RL, AB
070	500	Cable Block Diagrams	D, P, RL, AB
090		Cross Connect Records	P, RL, AB
100		Distribution Frame Layout	D, P, RL, AB
110	600	Circuit Diagrams	D, P, RL, AB
120	600	Labeling Details	P, RL, AB
130	600	Patch Panel Layouts	P, RL, AB
140		Power Distribution	D, P, RL, AB
160	300	Cable Routing Layouts	D, P, RL, AB
171	700	Mechanical Assembly and Mounting Details	D, P, RL, AB
180	800	Miscellaneous Installation Details	D, P, RL, AB
190		Miscellaneous System Configuration Details	D, P, RL, AB
LEGEND C–Conceptual, D-Developmental, P-Production, RL- Red Line, AB-As Built			

5.7.2 SYSTEMS ACCEPTANCE TEST PLAN

The contractor shall prepare a Systems Acceptance Test (SAT) Plan that encompasses all system and sub-system test activities planned for each system. The following areas shall be emphasized in the SAT Plan: Test Event, Purpose of the Test, Date of Test (Start and End), Location of the Test, Need for Government Test Support, Schedule of Individual Test Events, and Test Procedures.

5.7.3 TEST PROCEDURES, TEST CASES, TEST SCRIPTS

The Test Procedures, Test Cases, Test Scripts (TPTCTS) aligns with the SAT and GAT Plans; identify how each system is integrated, tested, and meets the specified system requirement. The TPTCTS shall include the following: Test Event; Test Diagram; Purpose of the Test; Test Entrance Criteria; Date of Test (Start and End), Location of the Test; Need for Government Test Support; Met, Not Met, or Met With Exception Criteria; and signature block for the Test Operator and Government Witness.

The Contractor shall provide TPTCTSs, as individual appendices to the SAT Plan for each system and sub-system delivered under the PWS. The Test Procedures shall include all test cases and test scripts to demonstrate all system and sub-systems meet the specific requirements of the PWS.

5.7.4 REQUIREMENTS TRACEABILITY MATRIX

To ensure compliance with all requirements, the Contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all requirements defined in the PRS and site-specific requirements. The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, demonstration) to validate the contractors proposed system design for Government acceptance.

5.7.5 CUTOVER PLAN

The contractor shall develop a detailed Cutover Plan. The Cutover Plan shall provide the overall plan including the schedule, required Government resources, system outages, and fall back plan. In addition, the plan shall contain the system specific detailed procedures.

The contractor shall develop a detailed Cutover Plan for each system and subsystem. The Cutover Plan shall be system specific and shall include, at a minimum, a sequential list of events, detailed procedures, post-Cutover testing requirements/procedures, scheduled service outages/windows, service priority based cut-sheets, and system recovery/fall back plan. The Cutover Plan including any modifications must be accepted by the Government prior to commencement of cutover. Cutover shall not begin without a Government acceptance of the proposed cutover plan.

6 TRAINING

6.1 NEW EQUIPMENT TRAINING

For all non-Cisco OEMs, New Equipment Training (NET) shall be provided by the OEM or OEM certified trainers utilizing the Government approved course of instruction. NET shall consist of courses for administrators, operators, and maintainers (when deemed necessary). The contractor shall detail their training plan in their proposal. Where eLearning or web-based courses are involved a remote registry (user name and password) must be provided to the receiving units for access to the OEM courses. The courses shall not be more than eight hours in length each day and will be conducted Monday through Friday during normal business hours. Following completion of NET, Government approved comments received from attendees (Instructor Rating Forms, End of Course Critiques) shall be incorporated into the course to yield an improved product. The training shall be of sufficient depth and shall include "hands-on" time with the system to ensure that personnel are qualified to teach others (train the trainer concept) and to safely perform tasks in the intended operational environment. Training materials shall be provided IAW the requirements in the Section 6.1 - Training and Table 4 - Training Deliverables Matrix.

Table 4 – Training Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Training Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
2	Training Materials	NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
3	Training Material Updates	As required.	Contractor Format

6.2 TRAINING PERFORMANCE AND EVALUATION

The NCI Logistician and Manpower and Training (MPT) Lead will observe and evaluate the first instance of each training session. The contractor shall update the training materials (if applicable) in preparation for the next training event according to the comments received from attendees and MPT Lead's evaluations, recommendations, and comments. After each training event, all evaluation materials (tests, instructor rating form, and end of course critique) will be delivered to the MPT Lead for ongoing training analysis. An attendance roster shall be administered for each class substantiating each day of attendance and contain each student's basic information such as first and last name, grade, and Military Occupational Specialty (MOS) or Job Series. This roster shall also include class title(s), date and location, the name of the instructor, and the instructor's employer.

6.3 TRAINING MATERIALS SUSTAINMENT

The contractor shall provide any revisions to the training course materials to each student in hard and soft copy. This includes all training material and technical literature required to teach the course (train the trainer concept) which includes but is not limited to instructor lesson plans, student guides, instructional visual aids, and any tests or practical applications with answer guides.

6.4 TRAINING PLAN

The contractor shall prepare and provide a Training Plan to include strategy, methods, and resources to deliver training. This includes training concepts that incorporate course description, learning objectives, conditions, and standards. The Training Plan shall identify delivery methods, media type, anticipated training time, test, and evaluation. The Training Plan shall identify location, frequency, throughput, mitigated safety risks, classroom facilities, and training schedules.

6.5 TRAINING MATERIALS

All training material shall be prepared per MIL-PRF-29612 and the Systems Approach to Training Manual, NAVMC 1553.1. Materials that fall under parameters of Commercial Off-the-Shelf (COTS) or non-developmental items do not necessarily have to be drafted under the specific templates but have to contain the elements within SAT guidelines.

The MPT Lead shall have fifteen (15) calendar days to review the any training materials submitted by the Contractor in the Training Plan, to ensure compliance with MIL-PRF-29612 and SAT Manual (NAVMC 1553.1) guidance and to provide comments and recommendations to the Logistics Lifecycle (LCL) lead.

7 MANDATORY COMPLIANCE DOCUMENTS AND STANDARDS

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

1. Marine Corps Systems Command, Statement of Need (SON) for the Marine Corps Base Telecommunications Infrastructure (BTI), MCB Quantico: Marine Corps Systems Command, 2010.
2. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need, MCB Quantico: Marine Corps Systems Command, 2012.
3. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need (SON), MCB Quantico: Marine Corps Systems Command, 2013.
4. Marine Corps Systems Command/PMM-110, BTI Program Protection Plan, Quantico: Marine Corps Systems Command/PMM-110, 2013.
5. Marine Corps Systems Command/PMM-110, BTI Test Evaluation Strategy, Quantico: Marine Corps Systems Command/PMM-110, 2013.
6. USMC UC Implementation Plan v 1.0, Oct 9 2013 Unified Capabilities Implementation Plan.
7. MCSC/P IS&I, PMM-110/037-15, Acquisition Decision Memorandum for the Base Telecommunications Infrastructure Program, Quantico: Marine Corps Systems Command, 2015.
8. Department of the Navy (DoN), Next Generation Enterprise Network Capabilities Production Document, v. 1.5.6, 2012.
9. Marine Corps Wide Area Network (WAN) Transport Implementation Plan. Version 1.01 dtd 9 September 2017.
10. Department of the Navy, Unified Capabilities Implementation Plan, Washington, DC Department of the Navy, 2015.
11. Navy UC Implementation Plan Nov 22, 2013 Unified Capabilities Implementation Plan

12. DoN Software Process Improvement Initiative (SPII) Guidebook Department of the Navy Policy for Acquisition of Naval Software Intensive Systems, September 16, 2008.
13. Department of Defense, Defense Acquisition Guidebook (DAG).
14. Defense Information Systems Agency (DISA) Net-Centric Enterprise Services (NCES).
15. Department of Defense/DISA, "JITC UC Document Depot / EMS) Letter of Clarification Template Requirements," 4 May 2016.
16. US DoD System Safety Program, 2009.
17. DoD Information Enterprise Architecture Information Enterprise Architecture, v1.1, May 2009.
18. DoD, Manual For The Operation Of The Joint Capabilities Integration And Development System (JCIDS), 2012.
19. DoD Internet Protocol Version 6 (IPv6) Standard Profiles For IPV6 Capable Products Version 6.0 July 2011.
20. DoD Federal Acquisition Regulation Supplement (DFARS) 252.211-7003 Item Identification and Valuation.
21. DoD/CIO UCF January 2013 Unified Capabilities Framework.
22. DoD Procurement Toolbox, 2016.
23. Department of Defense Architecture Framework (DoDAF) v2.0.
24. Department of Defense/Defense Information Systems Agency Unified Capabilities Framework, Washington: Department of Defense/Defense Information Systems Agency, 2013.
25. DoD, Department of Defense Unified Capabilities (UC) Extensible Messaging and Presence Protocol (XMPP) Errata-1.
26. DoD, Department of Defense Assured Services (AS) Session Initiation Protocol (SIP).
27. DoD Guidance on Protecting Personally Identifiable Information (PII).
28. Federal Information Security Management Act (FISMA) of 2002 Standards and guidance for minimum-security requirements for Information Systems.
29. Modular Open Systems Approach (MOSA), Version 2.0.
30. Security Configuration Guides.
31. Strategic Command Directive 527-1 DoD Information Operations Conditions (INFOCON) System Procedures.
32. VoIP STIG Version 3, Release 15, VoIP Security Technical Implementation Guide.
33. DISA Policy and Guidance.
34. DISA, DoD Telecommunications and Defense Switched Network Security Technical Implementation Guide.
35. Network Infrastructure STIG Version 8, Release 8.
36. The Certificate Issuing and Management Components family of Protection Profiles (PPs).
37. Information Technology Infrastructure Library (ITIL) v3 Foundation Procedures, tasks and checklists used by an organization for establishing a minimum level of competency.
38. USAISEC OSPDPR Outside Plant Design and Performance Requirements (OSPDPR).

39. USAISEC I3A-2010 Technical Criteria for the Installation Information Infrastructure Architecture (I3A).
40. International Building Code (IBC 2015).

7.1 FEDERAL PUBLICATIONS

Publication	Short Title
NIST SP 800-58	Voice Over IP (VoIP) Security
CNSSI 5000	Guidelines for VoIP Computer Telephony
OSHA 29 CFR 1910	Occupational Safety and Health Standards
OSHA 29 CFR 1910.269	Electric Power Generation, Transmission, and Distribution
OSHA, 29 CFR 1926.50	Medical services and first aid
OSHA 29 CFR 1926.403	Safety and Health Regulations for Construction
OSHA 29 CFR 1298	Occupational Safety and Health Standards, Washington: Occupational Safety and Health Administration, 2007

7.2 MILITARY UNIQUE STANDARDS

Publication	Short Title
MIL-STD 130N w/CH 1	Identification Marking of U.S. Military Property
MIL-STD-461G	Requirements for the Control of Electromagnetic Interference
MIL-STD-464C	Electromagnetic Environmental Effects Requirements for Systems
MIL-STD-810G w/CH 1	Environmental Engineering Considerations and Laboratory Tests
MIL-STD-882D	Standard Practice for System Safety
MIL-STD-129R	Military Marking for Shipment and Storage
MIL-STD-188 124B	Grounding Bonding and Shielding
DI-MGMT-81650	Integrated Master Schedule (IMS)
MIL-HDBK-419A	Grounding and Bonding
MIL-HDBK-1013/1A	Design Guidelines for Physical Security of Facilities

7.3 DoD OPNAV AND MARCORSYSCOM STANDARDS AND REFERENCES

Publication	Short Title
ASTM D3951 - 15	Standard Practice for Commercial Packaging
CJCSI 6510.01F	Information Assurance (IA) and Support to Computer Network Defense (CND)
CJCSI 6211.02D	Defense Information Systems Network (DISN) Responsibilities
CJCSI 6212.01E	Interoperability and Supportability of Information Technology and National Security Systems
CJCSI 6215.01C	Policy for Department of Defense (DoD) Voice Networks with Real Time Services (RTS)
CJCSI 6130.01F	Master Positioning, Navigation, and Timing Plan
DoD 5000.2	Operation of the Defense Acquisition System
DOD 8420.01	Commercial Wireless Local-Area Network (WLAN) Devices, Systems, And Technologies, November 3, 2017
DoDI 8100.04	Unified Capabilities
DoDI 8500.01	Cybersecurity
DoDI 8510.01	Risk Management Framework for Information Technology
DoDI 5000.64	Accountability and Management of DoD Equipment and other Accountable Property
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 3020.26P	Department of Defense Headquarters Continuity Plan (U)
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 5400.16	DoD Privacy Impact Assessment (PIA) Guidance
DoDI 4140.67	DoD Counterfeit Prevention Policy
DoDI 4161.02	Accountability and Management of Government Contract Property
DODI 8010.01	Department Of Defense Information Network (DODIN) Transport
DoDI 8320.04	Item Unique Identification Standards for Tangible Personal Property
DoDD 8500.01E	Information Assurance, Mission Assurance Category
DoDD 8500.2	Information Assurance Implementation
DoDD 5000.01	The Defense Acquisition System
UCR 2013	Unified Capabilities Requirements 2013 (UCR 2013) w/CH 2
UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property w/CH 2
UFC 3-301-01	Structural Engineering w/CH 3
UFC 3-310-04	Seismic Design of Buildings
UFC 3-501-01	Electrical Engineering

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Publication	Short Title
UFC 3-520-05	Stationary Battery Areas w/CH 1
UFC 3-520-01	Interior Electrical Systems
UFC 3-575-01	Lightning and Static Electricity Protection Systems
UFC 3-580-01	Telecommunications Interior Infrastructure Planning and Design
UFC 3-580-10	Navy and Marine Corps Intranet (NMCI) Standard Construction Practices
UFC 3-600-01	Fire Protection Engineering for Facilities Change 1
UFC 4-021-02	Electronic Security Systems
UFC 2000 Article 64	Stationary Lead-Acid Battery Systems
UID Guide Version 2.5	Assuring Valuation, Accountability and Control of Government Property
USAISEC – I3A, I3MP	Fort Detrick Engineering Directorate, Technical Guide for I3A and I3MP Grounding and Bonding
USAISEC – I3MP	Fort Detrick Engineering Directorate, Technical Guide for Installation Information Infrastructure Modernization Program (I3MP)
USAISEC – I3A	Technical Criteria for the Installation Information Infrastructure Architecture (I3A)
USAISEC - SIPRNet	Secret Internet Protocol Router Network (SIPRNet) Technical Implementation Criteria
USAISEC, TR No. AMSEL-IE-IS 08014	Enterprise Systems Engineering Directorate, I3MP Guide for Facilities Requirements of Core Communications Nodes
USAISEC, TR No. AMSEL-IE-TI 09-001-7A	United States Army Information Systems Engineering Command (USAISEC) Outside Plant Design and Performance Requirements (OSPDPR)
MARADMIN 639/08	USMC CS Vulnerability Management (CSVM) Program
MCBUL 5239	Marine Corps Certification And Accreditation Program
MCO 5239.1	Marine Corps Information Assurance Program (MCIAP)
MCBUL 5234.15B	Marine Corps Enterprise Network Microsoft Computer Operating Systems Directive For Windows 10. Server 2012 and Exchange 2013
NAVMC 5100.1	Marine Corps Operational Safety and Health Program
SECNAVINST 5000.2	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

7.4 INDUSTRY STANDARDS AND REFERENCES

Publication	Short Title
ANSI/EIA 310-D	Cabinets, Racks, Panels, and Associated Equipment
ANSI/TIA 606-C	Administration Standard for Commercial Telecommunications Infrastructure
ANSI/TIA 568.0-D	Generic Telecommunications Cabling for Customer Premises
ANSI/TIA 606-C	Administration Standard for Telecommunications Infrastructure
ANSI/TIA 569-D	Telecommunications Pathways and Spaces
ANSI/TIA 942-B	Data Center Cabling Standard
ANSI/TIA-568.3-D	Optical Fiber Cabling Components
ANSI/TIA- 455-133-A	Measurement of Fiber or Cable Length Using an OTDR
ANSI/TIA/EIA-455-8-2000	Measurement Methods and Test Procedures – Attenuation OTDR
ANSI J-STD -607-C w/CH 1	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
ANSI Z535.4	Product Safety Signs and Labels
ANSI/BICSI 002	Data Center Design and Implementation Best Practices
ANSI/HFES 100	Human Factors Engineering of Computer Workstations
ANSI/ISEA Z358.1	American National Standard for Emergency Eyewash and Shower Equipment
ANSI/IEEE 142	Recommended Practices for Grounding of Industrial and Commercial Power Systems
ANSI/IEEE C2	National Electrical Safety Code (NESC)
IEEE 802.3	Standard for Ethernet
IEEE 802.3at	IEEE Standard for Information technology - Local and metropolitan area networks - Specific requirements - Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 3: Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements
IEEE 802.3af	IEEE Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications - Data Terminal Equipment (DTE) Power Via Media Dependent Interface (MDI)
IEEE 802.1Q	Virtual Local Area Networks (LANs)
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.3ab	1000BASE-T Gigabit Ethernet

Publication	Short Title
IEEE 802.3z	Gigabit Ethernet Over Optical Fiber and Shielded Twisted Pair (STP)
IEEE 802.3ae	10 Gigabit Ethernet (10 GbE)
IEEE 802.1w	Rapid Reconfiguration of Spanning Tree
IEEE 802.1s	Multiple Spanning Trees
IEEE 802.3ba	40/100 Gigabit Ethernet
IEEE RFC7348	Virtual eXtensible Local Area Network (VXLAN)
IEEE 802.11	IEEE Standard for Information Technology - Telecommunications and information exchange between systems Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
IEEE 1100	IEEE Recommended Practice for Powering and Grounding Electronic Equipment. (IEEE Emerald Book)
IEEE 1106	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1187	IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Storage Batteries for Stationary Applications
IEEE 1188	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1189	IEEE Guide for Selection of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
IEEE 1220	IEEE Application and Management of the Systems Engineering Process
IEEE 1471	Recommended Practice for Architecture Description of Software Intensive Systems
IEEE 15288.2	Standard for Technical Reviews and Audits on Defense Programs
MIL-STD 31000 Rev. C	Technical Data Packages
ASME Y14.100	Engineering Drawing Practices
ASME Y14.24	Types and Applications of Engineering Drawings
ASME Y14.35M	Revision of Engineering Drawings and Associated Documents
ASME Y14.34M	Associated Lists
IETF RFC 2819	Remote Network Monitoring Management Information Base
IETF RFC 3261	SIP: Session Initiation Protocol

Publication	Short Title
IETF RFC 3410	Introduction and Applicability Statements for Internet-Standard Management Framework
IETF RFC 3418	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
IETF RFC 4346	The Transport Layer Security (TLS) Protocol, Version 1.1
IETF RFC 5709	OSPFv2 HMAC-SHA Cryptographic Authentication
IETF RFC 5798	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6
IETF RFC 5905 v4	Network Time Protocol Version 4: Protocol and Algorithms Specification
NEMA 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
NFPA 1	Fire Code
NFPA 70	National Electrical Code
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 72	National Fire Alarm and Signaling Code
NFPA 75	Standard for the Protection of Information Technology Equipment
NFPA 76	Stationary Lead-Acid Batteries
NFPA 101	Life Safety Code
NFPA 110	Standard for Emergency and Standby Power Systems
NFPA 780	Standard for the Installation of Lightning Protection Systems
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems
GR-513-CORE	Power Requirements in Telecommunications Plants
GR-1275-CORE	Central Office/Network Environment Equipment Installation/Removal Generic Requirements
GR 1502-CORE	Central Office/Network Environment Detail Engineering Generic Requirements
GR-3160-CORE-001	Generic Requirements for Telecommunications Data Center Equipment and Space, Jul 2013
UL 96A	Standard for Installation Requirements for Lightning Protection Systems
UL 467	Grounding and Bonding Equipment
UL 497	Standard for Protectors for Paired-Conductor Communications Circuits
UL 497A	Standard for Secondary Protectors for Communications Circuits
UL 497B	Standard for Protectors for Data Communications and Fire-Alarm Circuits
UL 1449	Standard for Surge Protective Devices

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Publication	Short Title
EIA-625	Requirements for Handling Electrostatic Discharge-Sensitive (ESDS) Device
IFC	International Fire Code
EPA 40 CFR	Protection of Environment: Hazardous Material Inventory and Reporting, Spill Control, Spill Reporting, and Disposal
ISO/IEC/IEEE 8802-15-4	Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 15-4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for low-rate Wireless Personal Area Networks (WPANs)
ITU-T G.655	Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable
ITU-TG.709/Y1331	Interfaces for Optical Transport Network.
ITU-TG.798	Characteristics of Optical Transport Network Hierarchy
ITU-TG 872	Architecture of Optical Transport Networks
ITU-TG 873.1	Optical Transport Network Linear Protection.
ITU-G.694.1	Spectral grids for WDM applications: DWDM Frequency Grid
ITU-G.692.2	Amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces
LPI 175	Standard of Practice for the Design - Installation - Inspection of Lightning Protection Systems

8 APPLICABLE PUBLICATIONS (CURRENT EDITIONS)

The following documents apply to this Performance Specification. In the event of conflict between the applicable documents and this PWS, the PWS shall take precedence. All documents cited as compliance documents shall be considered as guidance only. Nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained. Appendix A - *MCB Quantico – Site Specific Equipment* provides a listing of the MCB Quantico existing nodes and equipment per site.

Appendix	Document/Reference	Purpose
A	Site Specific Equipment	Provides a listing of the MCB Quantico existing nodes and equipment per site.
B	NCI Systems Engineering Plan (SEP)	Describes the Government's systems engineering process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
C	NCI Test and Evaluation Management Plan	Describes the Government's test and evaluation process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
D	PM N&I Configuration Management Plan	Describes the Government's configuration management process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
E	NCI Risk Management Plan	Describes the Government's risk management process. The Contractor is expected to have a similar effort that integrates with the Government's risk reporting process.
F	BTI Life-Cycle Sustainment Plan (LCSP)	Describes the Government's sustainment process.
G	BTI Item Unique Identification (IUID) Plan	Describes the Government's equipment accountability requirements and process.
H	PM N&I Programmatic Environmental, Safety, and Occupational Health Evaluation (PESHE)	Describes the Government's Environmental, Safety, and Occupational Health (ESOH) risk management approach (strategy, processes, and procedures) to include the integration of ESOH considerations in the acquisition and systems engineering processes.
I	Quality Assurance Surveillance Plan (QASP)	Describes the method by which the Government will monitor the Contractor's overall performance. The Contractor is expected to satisfy all the requirements of the contract by leveraging the surveillance procedures and methodologies established the QASP.
J	NCI BAN Reference Architecture	
K	NCI UC Reference Architecture	
L	NCI Network Power Reference Architecture	

8.1 GENERAL

The contractor shall develop an engineering design to deliver a turnkey solution that conforms to all the performance requirements specifications in this section of the PWS. The design and operation of the solution is governed by the NGEN Capability Production Document (CPD) and the BTI Statement of Need (SON) and associated Letters of Clarification (LOC). These governing documents include Key Performance Parameters (KPP) which must be maintained throughout the modernization of the communication infrastructure to be performed at MCB Quantico, and are the foundation of the systems design characteristics. Those KPPs are identified in Section 8.1.1. Additional system and subsystem specifications are identified sections 8.2 and 8.3. Specifications governing Site Preparation and Network Power are provided in section 8.4.

8.1.1 SYSTEM-WIDE KEY PERFORMANCE PARAMETERS

Performance Objective	Performance Threshold	Method of Surveillance
KPP-1	Components shall be JITC compliant.	Inspection
KPP-2	The system(s) shall have an operational availability of 99.999%.	Analysis
KPP-3	The system shall have a growth capacity of 25% to support the increase in users without an equipment replacement.	Analysis
KPP-4	Installations with geographically separate Points of Presence (PoP) shall have redundant UC and BAN equipment and services at each CN connected in a split core configuration mirroring the transport boundary.	Analysis

8.2 UNIFIED COMMUNICATIONS SYSTEM

The Regional UC solution shall provide business voice capability to those locations where the solution will be deployed. MCB Quantico shall include all NIPRNet users on MCB Quantico. The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911) services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

8.2.1 VOICE EQUIPMENT INSTALLATION AND CONFIGURATION

Delivery of voice and data services to the end-user shall be provided over a single physical infrastructure connection (port) at the end-user workstation. Physical connection of the end-user devices in series via the phone set. Logical connection for voice and data services shall be accomplished via Virtual Local Area Network (VLANs) or Software-Defined Network (SDN) virtual network.

Each new line module and gateway shall be fully wired to the MDF and equipped with all required common control and power cards, and connected to the assigned Local Session Controllers (LSCs). The contractor shall EFIST and make operational any new cards required to support a mixture of

analog. The contractor shall provide one analog gateway per DN and 8,000 knowledge workers and associated hardware. The contractor shall furnish and install equipment blocks, vertical frames, cables, Digital Cross-Connect (DSX) panels, etc., to terminate the equipped and wired capacity onto the horizontal side of the MDF or cross-connect. The contractor shall coordinate placement of equipment blocks with the TSO. The contractor shall test all endpoints after installation is complete.

8.2.2 EQUIPPED SUBSCRIBER PORT CAPACITY

The equipped subscriber port capacity shall be fully licensed, assigned, and activated at the time of cutover. Equipped line cards shall be distributed evenly across all media gateway shelves and line modules to prevent an outage of ports of the same type in the same workspace in the event of hardware failure. The contractor shall build temporary subscriber test lines of all equipped types on each line card module or drawer for testing equipment dial tone during System Acceptance Test (SAT).

8.2.3 WIRED SUBSCRIBER PORT CAPACITY

The wired subscriber port capacity shall be provided as pre-wired hardware (i.e., shelves, drawers, common control circuit packs, etc.) and have the ability to be activated only through the use of basic switch translations and the installation of subscriber port modules and circuit packs.

8.2.4 REPLACEMENT PHONE SETS

The contractor shall provide replacement phone sets at the time of systems cutover. The replacements are provided to support the operations and maintenance of the voice network after Government acceptance. The quantity of replacement phone sets to be delivered shall be 8,000.

8.2.5 KEY SYSTEMS ATTRIBUTES**8.2.5.1 REGIONAL UC SYSTEM**

Performance Objective	Performance	Method of Surveillance
UC-1	The Regional UC system shall provide IP and analog voice services to each end-user on all Installations within the region.	Inspection
UC-2	The Regional UC shall provide the ability to call between regional end-users without using the softswitch backbone.	Analysis
UC-3	Voice services include business voice, voice conferencing, voice mail, and unified messaging.	Inspection
UC-4	The UC system shall have a Telecommunications Management System (TMS) that supports all the Installations within the region.	Inspection
UC-5	Support the Differentiated Service Code Points (DSCP) markings to implement QoS/CoS.	Inspection
UC-6	Provide native audio Mean Opinion Score (MOS) of 3.8, at a minimum, IAW the Telecommunications Industry Association (TIA) Telecommunications – IP Telephony Equipment – Voice Quality Recommendations for IP Telephony (TSB-116-A).	Inspection

8.2.6 MAJOR FUNCTIONAL REQUIREMENT**8.2.6.1 LOCAL SESSION CONTROLLER**

Performance Objective	Performance	Method of Surveillance
LSC-1	A UC system shall consist of LSCs and Media Gateways as required at each B/P/C/S.	Inspection
LSC-2	LSCs installed at each Installation as defined above shall conform to the requirements for Assured Services Core Session Controller as defined in the UCR 2013 w/Change 2.	Inspection
LSC-3	Each LSC shall interface with the other LSCs in its region in a coordinated cluster to provide full failover capability across Installations.	Inspection
LSC-4	Each LSC shall provide local survivability in the event DISN connectivity is lost.	Inspection
LSC-5	Each LSC shall support local session management when in a disconnected state.	Inspection
LSC-6	Each LSC shall support on Base E911/NG911 routing to the PSAP or ERC, via existing Installation infrastructure.	Inspection
LSC-7	The UC systems shall provide both DSN and PSTN Directory Number assignments for each subscriber.	Inspection

Performance Objective	Performance	Method of Surveillance
LSC-8	Automatic Call Distribution (ACD) shall be provided at the region.	Inspection
LSC-9	Supported Users can utilize softphones through secure VPN from any remote location.	Inspection

8.2.6.2 SESSION BORDER CONTROLLER

Performance Objective	Performance	Method of Surveillance
SBC-1	SBCs shall be co-located and configured in a redundancy group.	Inspection

8.2.6.3 TELECOMMUNICATIONS MANAGEMENT SYSTEM

Performance Objective	Performance	Method of Surveillance
TMS-1	The TMS will be located at MCB Quantico.	Inspection
TMS-2	The TMS shall have a direct interface to Remedy for asset tracking.	Inspection

8.2.6.4 CUSTOMER SERVICE SUPPORT APPLICATION

Performance Objective	Performance	Method of Surveillance
CSSA-1	Customer Service Support Application (CSSA) shall be provided at the region.	Inspection
CSSA-2	CSSA shall provide call routing via Interactive Voice Recognitions (IVR) for management, administration features.	Inspection
CSSA-3	CSSA shall support 400 agents.	Inspection
CSSA-4	CSSA shall have a built in “heat map” to allow scheduling during peak usage vice time of day.	Inspection

8.3 BASE AREA NETWORK

The BAN at MCB Quantico shall be developed in accordance with the reference architecture shown in Figure 2 and interface with the MCEN Core Switches. The BAN consists of DNs and Edge Access Devices logically connected as depicted in Figure 2. A DWDM system shall be EFIST'd. It shall provide connectivity between the core nodes and the area distribution nodes. Connectivity to the end-user will be accomplished over traditional Ethernet switches and Edge Access Devices located in EUBs. The BAN shall satisfy all the KSA and the Major Functional Requirements identified the following sections.

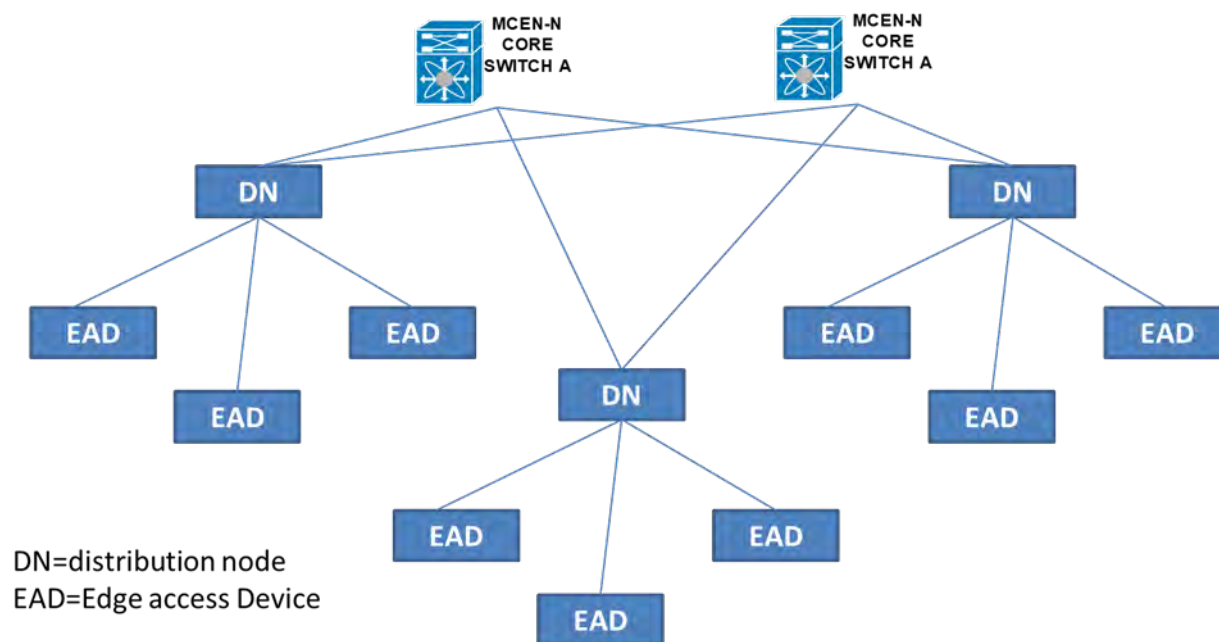


Figure 2 – BAN Reference Architecture

8.3.1 KEY SYSTEMS ATTRIBUTES

8.3.1.1 Base Area Network

Performance Objective	Performance	Method of Surveillance
BAN-1	Voice, video and data shall be converged on the single installation BAN.	Inspection
BAN-2	The BAN shall support multi-tenancy on the single installation infrastructure.	Inspection
BAN-3	The BAN shall be operated from a single management system executed from a centralized Network Operation Center (NOC) on MCB Quantico.	Inspection
BAN-4	The BAN shall operate within the constraints of the Installation Gateway.	Inspection

8.3.2 MAJOR FUNCTIONAL REQUIREMENT

8.3.2.1 WAVELENGTH DIVISION MULTIPLEXING

The Optical Transport System (OTS) for the Backbone Transport shall be comprised primarily of DWDM technology to include all equipment and components to make a complete and functional Wave Selectable Switch (WSS) Reconfigurable Optical Add/Drop Multiplexers (ROADMs) nodal network elements. The OTS may include Course Wavelength Division Multiplexing (CWDM) technology in those instances in which a point-to-point connection is required between nodes with limited circuit requirements such as a linear spur to a node in a remote location or Installations that have two CNs, only. The contractor shall leverage existing optical fiber to provide a full or partial mesh topology with no single point of failure.

Performance Objective	Performance	Method of Surveillance
WDM-1	The WDM shall provide sufficient network degrees at each node to support the topology plus one spare degree.	Inspection
WDM-2	The WDM shall provide an integrated wave selectable switch Reconfigurable Optical Add/drop Multiplexer (ROADM) to support all the nodes.	Demonstration
WDM-3	Each degree shall transmit a minimum of 40G wavelengths on the initial configuration.	Test
WDM-4	The WDM network shall be upgradable to 200G and 400G wavelengths without removing the existing hardware suite (circuit card replacement is acceptable) (Objective).	Inspection
WDM-5	Path protection shall be implemented to provide high availability to each node.	Inspection

8.3.2.2 CORE AND DISTRIBUTION NODES

Performance Objective	Performance	Method of Surveillance
ADN-1	Node elements shall have a minimum of 10 Gbps uplinks to the MCEN Core Switch.	Inspection
ADN-2	There shall be two BAN core routers located in Bldg. 1999 and Bldg. 24204.	Inspection
ADN-3	The BAN core routers shall be configured in active-active configuration.	Inspection
ADN-4	The BAN core routers shall perform all BAN routing.	Inspection
ADN-5	The BAN core routers shall support MPLS.	Inspection

8.3.2.3 EDGE ACCESS DEVICE

Performance Objective	Performance	Method of Surveillance
EAD-1	Edge Access Devices shall have a minimum of 10 Gbps uplink to the DN element.	Inspection
EAD-2	Edge Access Devices shall have uplink diversity and redundancy when allowed by the outside plant.	Inspection
EAD-3	Edge Access Devices shall have a minimum of 10 Mbps end-user interfaces.	Inspection
EAD-4	Edge Access Devices shall have a minimum 10 Gbps interface to the Wireless Access Point (WAP).	Inspection
EAD-5	Edge Access Devices shall support POE+.	Inspection

8.4 SITE PREPARATION

Site preparation will be provided on an as needed basis at CNs and DN nodes only.

8.4.1 KEY SYSTEMS ATTRIBUTES

Performance Objective	Performance	Method of Surveillance
SP-1	The Network Power System shall provide sufficient uninterruptable AC and DC power to support all IT systems and components located in the facility.	Analysis
SP-2	The Network Power System shall provide sufficient transitional power in the event of loss of shore/commercial power until emergency backup comes on-line.	Demonstration
SP-3	Auxiliary infrastructure shall be installed IAW with all applicable Unified Facilities Criteria.	Inspection

8.4.2 MAJOR FUNCTIONAL REQUIREMENT**8.4.2.1 NETWORK POWER SYSTEM**

The contractor shall validate the power requirements at the VSS. If needed, the Government may request that the Contractor provide Network Power Systems at the Core and Distribution Nodes to support all the systems and subsystems delivered as a part of the proposed solution. This Network power systems shall include an AC connection to commercial or shore power, N+1 3-Phase AC UPS, Automatic Transfer Switch (ATS), self-testing network Emergency Power Off (EPO) switch, battery disconnect switch, and any necessary sub-panels, cabinet or rack power supply buss trackway and Power Distribution Units (PDUs).

Network Power Systems modernization (upgrade/replacement) will be provided on an as needed basis at Installations Core and Distribution Nodes only.

8.4.2.2 NETWORK PANELBOARDS AND SUBPANELS

Performance Objective	Performance	Method of Surveillance
NPS-1	All Network power panels and subpanels shall be 120/208 VAC, 3-phase, Y-connected, with separate neutral and ground conductors.	Inspection
NPS-2	Bonding of neutral and ground conductors shall be done in accordance with NFPA 70 and the NEC instruction regarding bonding of neutral to ground in a multi-panel system.	Inspection
NPS-3	AC distribution system wiring shall include a separate copper conductor marked as per NFPA 70 and the NEC instruction installed throughout all branch and feeder circuits.	Inspection
NPS-4	All network AC power panels feeding branch circuits shall be sized for not less than 25 percent growth in circuit breaker quantity.	Analysis
NPS-5	Circuit panels and circuit breakers shall not exceed 80% of the nameplate ampacity of the circuit breakers.	Inspection
NPS-6	All circuits for network equipment racks and cabinets shall be dedicated circuits.	Inspection
NPS-7	A self-testing Emergency Power Off switch shall be installed.	Demonstration

8.4.2.3 AC NETWORK POWER

Performance Objective	Performance	Method of Surveillance
ACP-1	A N+1, 3-Phase AC UPS shall be sized to meet designed systems power capacity, inclusive of the designed system reserve capacity.	Analysis
ACP-2	A 3-Phase UPS shall provide surge protection in a transformer-less topology and non-degenerative filtering for lighting strikes.	Inspection
ACP-3	A 3-Phase UPS shall provide load fault detection and clearing.	Demonstration
ACP-4	A 3-Phase UPS shall provide a harmonic reduction system to detect when harmonics, power factor or phase unbalance are out of limits and automatically corrects to the user-defined set point.	Demonstration
ACP-5	A 3-Phase UPS shall have the capacity to house the batteries in the same cabinet as the UPS for CNs and DN's to save floor space.	Inspection

Performance Objective	Performance	Method of Surveillance
ACP-6	A 3-Phase UPS shall have a three stage charging process that is capable of extending battery life by 50%.	Test
ACP-7	A 3-Phase UPS shall provide advanced notification prior to battery failure.	Demonstration
ACP-8	A 3-Phase UPS shall have a color touchscreen LCD interface.	Inspection
ACP-9	A 3-Phase UPS shall have internal modularity.	Analysis
ACP-10	A 3-Phase UPS shall have an internal maintenance bypass switch.	Inspection
ACP-11	A 3-Phase UPS shall have a UL 924 certification for emergency lighting.	Inspection
ACP-12	A 3-Phase UPS shall be serviceable thru the front of the cabinet. It shall have the ability to be put against the wall or in a corner.	Inspection
ACP-13	A 3-Phase UPS shall be rated an Energy Star Qualified partner with the U.S. Environmental Protection Agency and the U.S. Department of Energy.	Inspection
AACP-14	A 3-Phase UPS shall provide 99% efficiency across the operating load range.	Test
ACP-15	A 3-Phase UPS shall provide double conversion efficiency at 97% or greater.	Test
ACP-16	A 3-Phase UPS shall be equipped with a quick glance from a distance system status, via green/yellow/red LED light panel.	Inspection
ACP-17	A 3-Phase UPS shall be equipped with power monitoring and reporting software that is compatible with HTTP(S), SNMP, MODBUS TCP/IP, Modbus RTU, and BACnet IP protocols.	Inspection
ACP-18	A 3-Phase UPS shall have a safety certification that complies with the UL 1778, UL 924 Emergency Lighting and Power.	Inspection

8.4.2.4 DIRECT CURRENT NETWORK POWER

Performance Objective	Performance	Method of Surveillance
DCP-1	In the event a network component chassis requires DC power, a stand-alone N+1 rack mounted rectifier shall be sized and installed in the same rack to provide the required DC power capacity for that singular chassis component.	Inspection

8.4.2.5 NETWORK POWER DISTRIBUTION SYSTEM

Performance Objective	Performance	Method of Surveillance
NPD-1	PDUs shall have a 3-phase 120/208 VAC four-pole modular track buss way electrical distribution system above each equipment row fed from a 3-Phase UPS.	Inspection
NPD-2	The PDU track buss way power system shall be rated for 225 amps and 600 volts with each equipment row fed from a separate breaker.	Inspection
NPD-3	Each installed PDU track buss way power system shall have metering capabilities for each phase that includes an automatic cycling display that display Voltage, Current, and Power Usage, at a minimum.	Demonstration
NPD-4	A plug-in unit containing a 3-phase, 30-amp circuit breaker and a receptacle or drop-down cord with receptacle shall be installed above each rack as required to accommodate the equipment rack PDU.	Inspection
NPD-5	Equipment racks and cabinets containing equipment with “A” and “B” AC power supplies shall have two (2) plug-in drops and two (2) PDUs provided.	Inspection
NPD-6	Equipment racks and cabinets containing only passive equipment (i.e., unpowered fiber optic patch panels) do not require power drops or PDUs.	Inspection
NPD-7	Each equipment rack or cabinet shall have a combination 120/208 VAC PDU.	Inspection
NPD-8	Each PDU shall have not less than nine (9) IEC 320 standard C13 receptacles.	Inspection
NPD-9	Each PDU shall have not less than three (3) IEC 320 standard C19 receptacles.	Inspection
NPD-10	Each PDU shall have not less than twelve (12) NEMA 5-20 receptacles.	Inspection
NPD-11	Each phase in the PDU shall have a dedicated breaker.	Inspection
NPD-12	Equipment racks and cabinets containing equipment with “A” and “B” power supplies shall have two PDUs provided.	Inspection

8.4.2.6 NETWORK EMERGENCY BACKUP POWER SYSTEM

Performance Objective	Performance	Method of Surveillance
EBP-1	In the event commercial or shore power is interrupted, the 3-Phase UPS batteries shall be sized to provide uninterruptable, transitional power. A fully functional generator will be provided by the Government (B/P/C/S) as the sole source of emergency backup power.	Inspection / Demonstration
EBP-2	The batteries shall conform to the Unified Facilities Criteria (UFC) 3-520-05 and the UFC 3-520-01.	Inspection
EBP-3	The battery system shall use Valve Regulated Lead Acid (VRLA) batteries unless Lithium Ion batteries are approved by the Government.	Inspection
EBP-4	VRLA batteries shall be equipped with a battery management system to manage the battery rest and charge cycles to extend their life.	Test
EBP-5	VRLA batteries systems shall be monitored for cell failure.	Test
EBP-6	A keyed battery disconnect switch shall be installed at the exterior of the building adjacent to the entrance or in a location prescribed by the AHJ.	Inspection

8.4.3 AUXILIARY INFRASTRUCTURE

The contractor shall provide auxiliary infrastructure at the CNs and DNs to support the systems and subsystems delivered as a part of the proposed solution as defined by the Site Specific Requirements. Auxiliary infrastructure consists of the following: equipment racks/cabinets, bracing, seismic bracing, patch panels, ladder rack, wire cable tray, , cabling, cable management system, cable testing, bonding, and grounding.

8.4.3.1 MDF, IDF, AND BACKBOARDS

Performance Objective	Performance	Method of Surveillance
MDF-1	All additional or newly installed MDF, IDF and Backboards shall comply with the Installation Information Infrastructure Architecture (I3A).	Inspection

8.4.3.2 CABINETS, RACKS, AND PATCH PANELS

Performance Objective	Performance	Method of Surveillance
CRP-1	Equipment cabinets and rack mounting, dimensions, doors separation or clearances, load rating, cooling fans, spare capacities, horizontal and vertical cable management, strain relief, shall conform to UFC 3-580-1.	Inspection
CRP-2	Equipment cabinets shall have a minimum load rating of 200 pounds.	Inspection / Analysis
CRP-3	Equipment cabinets shall be equipped with a lockable, removable mesh doors.	Inspection
CRP-4	Equipment cabinets shall be equipped with factory knockouts.	Inspection
CRP-5	Equipment cabinets and racks shall have an angle support and a minimum of 46 Rack Units (RUs) and be equipped with an integrated, electrically isolated ground bar.	Inspection
CRP-6	Equipment cabinets and racks shall be black in color unless otherwise specified.	Inspection
CRP-7	Patch panels shall be provided and conform to the UFC 3-580-1.	Inspection
CRP-8	Patch panels shall be installed in, or adjacent to, the equipment racks or cabinets housing BAN equipment.	Inspection
CRP-9	TIA/EIA 568A duplex connectors on 19-inch rack-mounted panels shall be used unless otherwise directed.	Inspection
CRP-10	Fiber Optic Patch Panels (FOPPs) shall not exceed four RUs.	Inspection
CRP-11	All fiber-optic patch panels shall utilize pre-terminated tailed 12-strand closet connector housing cassette with SC duplex (unless specified otherwise) UPC ceramic connectors.	Inspection
CRP-12	Single-mode and multi-mode fiber optic cables shall be terminated on separate fiber optic patch panels.	Inspection
CRP-13	Patch panel labeling shall conform to TIA/EIA 606-A.	Inspection
CRP-14	Patch cables of varying lengths matching the patch panel they are connecting to shall be provided.	Inspection
CRP-15	Provide bend-insensitive, pre-terminated patch cords capable of being locked into place to avoid accidental disruption of services or tampering.	Inspection
CRP-16	CAT 6 copper cables shall terminate on EIA 568A 2-RU CAT 6 Certified Output Protection Protocol (COPP) Patch Panels.	Inspection
CRP-17	Copper Patch Cables: Copper patch cables shall be 4-pair, 24 American Wire Gauge (AWG) stranded UTP cable, rated for CAT6, with 8-pin modular connectors at each end.	Inspection

Performance Objective	Performance	Method of Surveillance
CRP-18	Copper patch panels shall consist of eight-position modular jacks with rear-mounted, type 110 insulation displacement connectors, category-rated for the UTP system being installed and arranged in rows or columns on 19-inch rack-mounted panels. Nineteen-inch wall-mounted panels may be utilized when necessary.	Inspection
CRP-19	Each FOPP and COPP shall have horizontal cable management either built into it or as an independent management system.	Inspection
CRP-20	All ironwork, including frames, cabinets, racks, and cable ladder racks, shall be installed IAW local seismic zone requirements and manufacturers specifications.	Inspection
CRP-21	All ironwork including frames, cabinets, racks, and cable ladder racks shall be isolated from any wall (at the anchor point), floors (at the anchor point), or ceilings with approved isolating materials.	Inspection

8.4.3.3 LADDER, WIRE CABLE TRAY, CONDUITS, EMT, PULL, AND SPLICE BOXES

Performance Objective	Performance	Method of Surveillance
LDR-1	A single tier cable ladder or wire tray system shall be provided to support for signal cabling above all equipment, cabinets, racks and the MDF. The signal cabling shall be separated from the power cables by not less than 12 inches. The power cable conduit system shall be located above the signal tier of rack. The cable ladder rack system shall not contact any surface of any equipment cabinets/racks.	Inspection
LDR-2	Ladder, wire cable tray, conduits and EMT, pull and splice boxes dimensions, separation and clearances, fill depth, headroom, fill ratios, bend radius, shall conform to the UFC 3-580-01 and I3A.	Inspection
LDR-3	Pull boxes or splice boxes shall conform to the guidance in I3A 3.6.1.3 and Article 314.28 of the National Electrical Code 2008 (NFPA 70).	Inspection
LDR-4	Twelve-inch wide ladder rack shall be used unless otherwise required.	Inspection
LDR-5	The ladder rack system shall be installed to run the full length of the room and the perimeter of the room. Each perpendicular row shall be arranged over the top of the equipment racks.	Inspection
LDR-6	Plastic or composite wire ways designed for fiber optic cables are permissible.	Inspection

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Performance Objective	Performance	Method of Surveillance
LDR-7	Copper cabling shall not be installed in any dedicated fiber optic wire ways.	Inspection

8.4.3.4 BONDING AND GROUNDING

Performance Objective	Performance	Method of Surveillance
GND-1	Metal cabinets, racks, raceways, ladders, cable trays, enclosures, frames, fittings, EMT, pull boxes, FOC and Copper cable armor, Outside Plant (OSP) Point Of Entry (POE), Building Entrance Terminals (BETs) and other metal noncurrent carrying parts that are able to serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault currents likely to be imposed on them.	Inspection
GND-2	All Bonding, Grounding, Testing and Labeling shall conform to the I3A, ANSI/TIA 607-C, IEEE 1100-2005 Emerald Book, MIL-STD-419A and MIL-STD-188 124B. NFPA 70, and ANSI TIA-942, TIA/EIA-569-B, NEC Article 250 and the UFC-3-580-01.	Inspection
GND-3	A 2-hole non-twisting, irreversible, circumferential compression fittings, with a sight inspection hole lug shall be used to connect all bonding conductors to the TMGB, TGB, cabinet, rack and cable ladders.	Inspection

8.4.3.5 FIRE STOP

Performance Objective	Performance	Method of Surveillance
FSP-1	Any existing or newly created pathway thru walls, ceiling or floors that are utilized shall conform to the fire stop requirements found within the UFC 3-580-01, NFPA70, NEC, I3A.	Inspection

8.4.3.6 ENVIRONMENTAL HAZARDS

Performance Objective	Performance	Method of Surveillance
OSH-1	The contractor shall perform limited asbestos abatement in support of minor-construction work under a non-construction contract IAW with established OSHA standards.	Inspection
OSH-2	The contractor shall be expected to take the appropriate safety precaution IAW with established OSHA standards to continue to perform work in support of minor-construction work under a non-construction contract when lead-based paint is present.	Inspection

8.4.3.7 FIBER AND COPPER CABLING

Performance Objective	Performance	Method of Surveillance
FBR-1	All fiber planned for use between the CN and DN's shall be characterized and if less than manufacturer's requirement the Government will be notified.	Inspection
FBR-2	Plenum cables shall be used in all plenum spaces IAW the NFPA 70, or as directed by the AHJ.	Inspection
FBR-3	OSP FOC or Copper cable that extends past the POE by 50 feet, it shall comply with the NFPA 70 Section 800.113.	Inspection
FBR-4	Cables and wiring between subsystems shall be clearly and permanently labeled and conform to the TIA/EIA-606-A.	Inspection

8.5 EXISTING NODES AND EQUIPMENT

The existing nodes and network and voice equipment is provided in Table 5 and Table 6. There may be additional equipment found during the verification site survey.

Table 5 – Existing Nodes and Equipment – MCB Quantico

Existing Nodes and Equipment									
MCB Quantico	Core 0	ADN1	ADN2	ADN3	ADN4	ADN5	ADN6	ADN7	Russel Knox
	DCO	TBS	-	-	MCU	OCS	Upshur	Weapons	-
Building	1999	24204	3255	3300	2076	2189	26100	27282	27130C
Zone #	8	7	4	5	3	2	-	9	1
PBX	Nortel/Avaya SL100/CS2100 CM6	Tellabs Voice Gateway	-	Nortel RCC2	Nortel RCC2	Tellabs T1000	-	Nortel MGk9	-
Voice Firewall	Secure Logix	-	-	-	-	-	-	-	-
Voice Mail	Nortel	-	-	-	-	-	-	-	-
Conference Bridge	Nortel	-	-	-	-	-	-	-	-
SBC									
Gateways	Avaya G450	-	-	Avaya G450	Avaya G450	-	-	Avaya G450	-
MPLS Routers	JB-CE 1	JB-CE 2	-	-	-	-	-	-	-
SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	-	SONET Node	-
DWDM									
Data Distribution Router	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	-	-	-	-
ASLAN Router	Brocade	-	-	-	-	-	-	Brocade	-
GPON OLT	Tellabs 1150	Tellabs 1150	-	-	Tellabs 1150	-	-	Tellabs 1150	-
GPON ONTs - Qty	107	38	-	-	92	-	-	16	-
Data Access Switch - Qty	64	57	35	24	30	22	-	53	2

Table 6 – Existing Nodes and Equipment – Remote Sites

Existing Nodes and Equipment – Remote Sites							
Remote Sites	INHZ	PKWY	SCPA	BAND	BRRK	WNYZ	ANNZ
	NCR	NCR	NCR	HQMC	HQMC	HQMC	HQMC
Data Distribution Router	CISCO 3750		CISCO 3750	CISCO 3750	CISCO 3750	CISCO 2811 CISCO 2911 ES2	-
ASLAN Router	-	-	-	-	-	-	-
GPON OLT	-	-	-	-	-	-	-
GPON ONTs - Qty	-	-	-	-	-	-	-
Data Access Switch - Qty	8	5	1	6	10	5	4

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APPENDIX A – MCB QUANTICO – SITE SPECIFIC EQUIPMENT

Attachment 1 provides the MCB Quantico existing nodes and equipment per site.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>							
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>			
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC			
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM System Security Plan (SSP) and Associated Plans of Action for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A			
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-82247		5. CONTRACT REFERENCE SOW, Section 5.2		6. REQUIRING OFFICE USMC, MCSC			
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION			
8. APP CODE N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE	b. COPIES		
					Draft	Final	
						Reg	Repro
<p>16. REMARKS</p> <p>Block 5: Contractor shall provide an SSP in accordance with NIST SP 800-171, indicating whether the Contractor has implemented the security requirements, plans to implement the security requirements, or that the requirement is not applicable. Attached to the SSP shall be a populated POA&M with all outstanding findings discovered during the self-audit describing compliance or non-compliance and plan of action(s) of the total list of security controls. This submission shall be upon award, on a quarterly basis or upon request.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Office 2200 Lester St Quantico, VA 22134</p> <p>Blocks 10-13: The Contractor shall deliver the initial SSP and POA&M (and appropriate extracts thereof) quarterly, or upon Program Management Offices request. The SSP will be reviewed for acceptance by the Government Program Management Office (PMO). The PMO shall be granted full access to validate the information in the Contractor's submission on an ad hoc basis without notice or upon replacement or rotation of the Government PM.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Any further distribution beyond what's listed will be authorized by the Program Management Office (PMO). Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal deliverable, however the Letter of Transmittal should be sent to the PCO to document delivery notification and compliance with this CDRL. Deliver all copies via electronic media where feasible, otherwise deliver in hard copy.</p>				COR	0	1	0
				PCO	0	0	1
				PEO/PfM ISSM	0	0	1
				APM	0	0	1
				15. TOTAL			
G. PREPARED BY Roger Asprer <small>Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:32:57 -0400</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>Digitally signed by MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 07:32:18 -0400</small>		J. DATE 6/18/2020	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188									
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>															
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>											
D. SYSTEM/ITEM MCB Quantico Modernization			E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC										
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Cyber Incident Reporting for a Contractor's Internal Unclassified Information System				3. SUBTITLE N/A										
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-XXXXXX (see Appendix 1)			5. CONTRACT REFERENCE SOW, Section 1.6.13		6. REQUIRING OFFICE USMC, MCSC										
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required		12. DATE OF FIRST SUBMISSION As Required		14. DISTRIBUTION									
8. APP CODE N/A		11. AS OF DATE Upon Award		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE	b. COPIES								
						Draft	Final								
							Reg	Repro							
<p>16. REMARKS</p> <p>Block 4: Formatting should be in accordance with Appendix 1.</p> <p>Block 5: The Contractor shall report all Cyber Incidents or Compromise related to Controlled Unclassified Information (CUI) on the contractors system/network in accordance to DFARS clause 252.204-7012 to the Damage Assessment Office (DAMO) via the DIB-Net website (http://dibnet.dod.mil) within 72 hours.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Name 2200 Lester St Quantico, VA 22134</p> <p>Block 10-13: In addition to reporting all Cyber Incidents or Compromises as stated above, the Contractor shall also submit a Cyber Incident Damage Assessment within 72 hours event in accordance with paragraph (d)(4) of DFARS clause 252.204-7012. All information related to Cyber Incidents or Compromises, as defined in DFARS clause 252.204-7012, shall also be relayed to the Defense Cyber Crime Center [dc3.mil] within 15 calendar days of the event. Upon incident, when feasible, the hardware shall not be powered down, but segregated from the network and any Department of the Navy (DoN) CUI separated from contractor-owned information pending investigation.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Further distribution will be authorized only by the Program Management Office (PMO) Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal delivery of the Cyber Incident Report, however a Letter of Transmittal should be sent to the PCO to document formal delivery notification. Send all copies of the report via encrypted email when feasible, otherwise deliver hard copy.</p>						COR	0	1	0						
												PCO	0	0	1
												PEO/PfM ISSM	0	0	1
												APfM Logistics	0	0	1
15. TOTAL						0	1	3							
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001</small>			H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259</small>		J. DATE 6/18/2020								

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

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FOR THE CONTRACTOR

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c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

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d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

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CONTRACT DATA REQUIREMENTS LIST (1 Data Item)										Form Approved OMB No. 0704-0188							
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A. CONTRACT LINE ITEM NO.				B. EXHIBIT			C. CATEGORY: TDP _____ TM _____ OTHER _____										
D. SYSTEM/ITEM					E. CONTRACT/PR NO.				F. CONTRACTOR								
1. DATA ITEM NO.		2. TITLE OF DATA ITEM						3. SUBTITLE									
4. AUTHORITY (Data Acquisition Document No.)					5. CONTRACT REFERENCE				6. REQUIRING OFFICE								
7. DD 250 REQ		9. DIST STATEMENT REQUIRED		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION									
8. APP CODE				11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE		Draft		b. COPIES					
												Final					
										Reg		Repro					
16. REMARKS																	
														15. TOTAL			
G. PREPARED BY					H. DATE		I. APPROVED BY					J. DATE					

17. PRICE GROUP

18. ESTIMATED
TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____
D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

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FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

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DATA ITEM DESCRIPTION

Title: Contractor's Systems Security Plan and Associated Plans of Action to Implement NIST SP 800-171 on a Contractor's Internal Unclassified Information System

Number: DI-MGMT-82247

AMSC Number: 9992

DTIC Applicable: No

Preparing Activity: OSD-SO

Applicable Forms: None

Approval Date: 20181031

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2018-049

Use/relationship: This Data Item Description (DID) contains the data content, format, and intended use of the Contractor's system security plan (or extracts thereof), to include any associated plans of action, addressing the Contractor's internal unclassified information system(s). When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on an unclassified information system that is owned, or operated by or for, the Contractor, the Contractor shall develop, document, and periodically update a system security plan(s), to include any associated plans of action, for the Contractor's internal unclassified information system in accordance with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations. Security Requirement 3.12.4 of the NIST SP 800-171 requires that system security plans describe system boundaries, system environments of operation, how security requirements are implemented, and the relationships with or connections to other systems. Security Requirement 3.12.2 of the NIST SP 800-171 requires that plans of action describe how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's unclassified information system. The system security plan (or extracts thereof) and any associated plans of action may be used by the government as input to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or operated by or for, the Contractor (i.e., Contractor's internal unclassified information system). This DID contains the information that shall be conveyed within the system security plan and any associated plans of actions for the Contractor's internal unclassified information system. There is no prescribed format or specified level of detail for how that information is conveyed. There is no requirement for the government to approve the system security plan or any associated plans of action for the Contractor's internal unclassified information system, but the government may request that the Contractor submit the system security plan (or extracts thereof), and any associated plans of action, such that the government may review the Contractor's implementation of security requirements. When requested by the government, the submitted system security plan (or extracts thereof) and any associated plans of action for the Contractor's internal unclassified internal information system may: - Demonstrate to the government the Contractor's implementation or planned implementation of the security requirements for their internal unclassified information system, or

- Be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or

operated by or for, the Contractor (i.e., Contractor's internal unclassified information system).
Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including development dates and dates of any applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format acceptable.

3. Content: The system security plan (or extracts thereof) shall include a description of system boundaries, system environments of operation, how security requirements are implemented or how organizations plan to meet the requirements, and the relationships with or connections to other systems. Any associated plans of action shall include a description how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's information system.

3.1. Cover Page: The cover page of the system security plan (or extracts thereof) and any associated plans of action shall identify the following information:

3.1.1. Title of the document (i.e., Systems Security Plan and Associated Plans of Action for [Name of Contractor's Internal Unclassified Information System])

3.1.2. Company name

3.1.3. Data Universal Numbering Systems (DUNS) Number

3.1.4. Contract number(s) or other type of agreement

3.1.5. Facility Commercial and Government Entity (CAGE) code(s)

3.1.6. System that this System Security Plan and any associated Plans of Action addresses

3.1.7. Date of latest revision

3.1.8. All appropriate distribution and classification statements/markings

3.2. System Identification: The purpose of the system security plan shall be communicated in this section, to include a description of the function/purpose of the Contractor's internal unclassified information system(s)/network(s) that is (are) addressed in the plan.

3.3. System Environment: A detailed topology narrative and graphic shall be included that clearly depicts the Contractor's internal unclassified information system boundaries, system interconnections, and key components. This does not require depicting every device, but would include an instance of operating systems in use, virtual and physical servers (e.g., file, print, web, database, application), as well as any networked workstations, firewalls, routers, switches, copiers, printers, lab equipment, etc. If components of other systems that interconnect/interface with this system need to be shown on the diagram, denote the system boundaries by referencing the security plans or names and owners of the other system(s) in the diagram. Include or reference (e.g., to an inventory database or spreadsheet) a

complete hardware and software inventory, including make/model/version and maintenance responsibility.

3.4. Security Requirements: Describe how the Contractor addresses/will address security requirements in each of the following NIST SP 800-171 security requirement families (including basic and derived requirements) for protecting covered defense information in the Contractor's systems and organizations:

- 3.4.1. Access Control (3.1.1 – 3.1.x)
- 3.4.2. Awareness and Training (3.2.1 – 3.2.x)
- 3.4.3. Audit and Accountability (3.3.1 – 3.3.x)
- 3.4.4. Configuration Management (3.4.1 – 3.4.x)
- 3.4.5. Identification and Authentication (3.5.1 – 3.5.x)
- 3.4.6. Incident Response (3.6.1 – 3.6.x)
- 3.4.7. Maintenance (3.7.1 – 3.7.x)
- 3.4.8. Media Protection (3.8.1 – 3.8.x)
- 3.4.9. Personnel Security (3.9.1 – 3.9.x)
- 3.4.10. Physical Protection (3.10.1 – 3.10.x)
- 3.4.11. Risk Assessment (3.11.1 – 3.11.x)
- 3.4.12. Security Assessment (3.12.1 – 3.12.x)
- 3.4.13. System and Communications Protection (3.13.1 – 3.13.x)
- 3.4.14. System and Information Integrity (3.14.1 – 3.14.x)

3.5. Plans of Action: In accordance with Security Requirement 3.12.2, provide any plans of action developed to address how and when the Contractor will implement any security requirements not yet implemented, identify known deficiencies and vulnerabilities in the contractor's internal unclassified information system, how and when the Contractor will correct identified deficiencies and reduce or eliminate vulnerabilities in the Contractor's system.

End of DI-MGMT-82247

DATA ITEM DESCRIPTION**Title: Cyber Incident Reporting for a Contractor's Internal Unclassified Information System(s)****Number: DI-MGMT-XXXXX****AMSC Number: YYYY****DTIC Applicable: No****Preparing Activity: TBD****Applicable Forms: None****Approval Date: TBD****Limitation: TBD****GIDEP Applicable: No****Project Number: MGMT-XXXX-XXX**

Use/relationship: When DFARS Clause 252.204-7012 is included in a contract for which Controlled Unclassified Information (CUI) – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted during the course of executing the terms a Department of Defense (DoD) contract, cyber incidents shall be reported to the Defense Cyber Crime Center (DC3) via the DIBNet portal.

This Data Item Description (DID) contains the information that is required of the Contractor submitting the incident report to DC3.

This information, once reported, will be shared by DC3 as threat information between the DoD and DIB companies. When DC3 receives a DFARS cyber incident report, DC3 will send an unclassified encrypted email containing the submitted incident report to the government Contracting Officer point of contact identified in the submitted report to have the report placed in the contract file to document the action, with a courtesy copy to the following:

- Director, DC3/DCISE
- Director, OSD DAMO
- Director, DIB CS/IA Program Office
- Contract Program Management Office

Requirements:

1. Format: Use the format prescribed through the DIBNet Portal at <http://dibnet.dod.mil>.

- Under “DoD’s DIB Cybersecurity (CS) Program” on the right side of the page, select “Voluntary Report”.
- Since this is reporting is to satisfy a contractual requirement, select “Mandatory Incident Report”.
- Follow the “Mandatory Incident Report” wizard for the following:
 - General Information
 - I. Company Identification
 - II. Company POC Information
 - III. Contract or other Agreement
 - IV. Incident Information
 - V. Ancillary Information

End of DI-MGMT-XXXX

DATA ITEM DESCRIPTION

Title: CONTRACTOR'S RECORD OF TIER 1 LEVEL SUPPLIERS RECEIVING/ DEVELOPING COVERED DEFENSE INFORMATION

Number: DI-SCRE-82258

AMSC Number: 10008

DTIC Applicable: No

Preparing Activity: RS

Applicable Forms: None

Approval Date: 20190313

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2019-010

Use/relationship: When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on a tier 1 level supplier's internal unclassified information system. (DFARS Clause 252.204- 7012 can be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252204.htm>)

a. This Data Item Description (DID) contains the information that is required of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information. This information will be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned or operated by, or for, the contractor (i.e. contractor's internal unclassified information system). This information will:

(1) Demonstrate to the government the Contractor's ability to restrict the dissemination of covered defense information specified in, or developed under, the contract to subcontractors that execute requirements that involve the covered defense information.

(2) Demonstrate to the government the Contractor's ability to ensure that their tier 1 level suppliers safeguard covered defense information in accordance with DFARS Clause 252.204- 7012.

b. This DID contains the format, content, and intended use information for the data deliverable resulting from the work task described in the contract.

Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including approval dates and dates of applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format is acceptable.

3. Content: The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information must include a description of how the Contractor will identify and restrict the dissemination of covered defense information to subcontractors who require the covered defense information to execute the requirements in their contract and how the Contractor will ensure that their tier 1 level suppliers safeguard covered defense information with the requirements of DFARS Clause 252.204-7012. The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include the following:

3.1. Cover Page: The cover page of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include:

DI-SCRE-82258

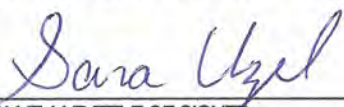
- a. Title of the document (i.e., [Name of Contractor] Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information
- b. Contractor's Data Universal Numbering Systems (DUNS) and Commercial and Government Entity (CAGE) code numbers
- c. Contract number(s) or other type of agreement (if available)

3.2. Tier 1 Level Supplier Information (for each Tier 1 Level Supplier receiving/developing covered defense information associated with this contract)

- a. Supplier Name
- b. Supplier contract and/or agreement number (if available)
- c. Supplier Point of Contact: name, email, and phone number
- d. Date the Tier 1 Level Supplier sub contract was put in place
- e. Number of sub contracts with Tier 1 Level Supplier
- f. Supplier contract and/or agreement contains or will contain substance of DFARS Clause 252.204-7012 Y/N
- g. Supplier contract and/or agreement contains or will contain cyber security measures and/or requirements other than those identified in DFARS Clause 252.204-7012 and National Institute of Standards and Technology (NIST) Special Publication (SP) 800- 171 Rev 1: Y/N (NIST SP 800-171 can be found at <https://csrc.nist.gov/publications/detail/sp/800-171/rev-1/final>)
- h. Contractor's DUNS and CAGE numbers:

- i. Supplier has conducted or will conduct a self-assessment in accordance with NIST SP 800-171A:Y/N (NIST SP 800-171A can be found at <https://csrc.nist.gov/publications/detail/sp/800-171a/final>)
- j. Supplier System Security Plan and Associated Plans of Action in accordance with NIST SP 800-171 Rev 1 Security Requirement 3.12.4 and 3.12.2
- k. List of Supplier's Tier 1 Level Suppliers receiving and/or developing covered defense information

END OF DI-SCRE-82258

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30				1. REQUISITION NUMBER SEE SCHEDULE		PAGE 1 OF 22	
2. CONTRACT NO. M6785420C4919		3. AWARD/EFFECTIVE DATE 30-Sep-2020		4. ORDER NUMBER		5. SOLICITATION NUMBER M6785420R4917	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME ANTHONY GENAO				b. TELEPHONE NUMBER (No Collect Calls) 703 784-6575	
8. OFFER DUE DATE/LOCAL TIME 12:00 PM 23 Jul 2020							
9. ISSUED BY COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134 TEL: 703-784-6575 FAX:		CODE M67854		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input checked="" type="checkbox"/> SET ASIDE: 100 % FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input checked="" type="checkbox"/> 8(A) NAICS: 541512 SIZE STANDARD: \$30,000,000			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input checked="" type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS Net 30 Days		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING	
				14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP			
15. DELIVER TO MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134		CODE M67854		16. ADMINISTERED BY SEE ITEM 9			
17a. CONTRACTOR/ OFFEROR TECHNOLOGY TRENDS GROUP, LLC ANN SPEYER 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686 TELEPHONE NO. (571) 388-5674		CODE 481E1 FACILITY CODE		18a. PAYMENT WILL BE MADE BY DFAS COLUMBUS DEFENSE FINANCE & ACCOUNTING SERVICE COLUMBUS DFAS-JDCBB/CO PO BOX 182317 COLUMBUS OH 43218-2317			
17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER <input type="checkbox"/>		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input checked="" type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
SEE SCHEDULE							
25. ACCOUNTING AND APPROPRIATION DATA See Schedule						26. TOTAL AWARD AMOUNT (For Govt. Use Only) \$24,029,195.24	
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3, 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED <input checked="" type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED							
<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED. REF: Proposal dated 31 August 2020				<input type="checkbox"/> 29. AWARD OF CONTRACT: REF. OFFER DATED <u>31-Aug-2020</u> . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS: SEE SCHEDULE			
30a. SIGNATURE OF OFFEROR/CONTRACTOR 				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER Sara Uzel TTG LLC Manager		30c. DATE SIGNED 9/29/2020		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) BRENDA D. EDWARDS TEL: 703-784-6541 EMAIL: Brenda.Edwards@usmc.mil		31c. DATE SIGNED 30 Sep 2020	

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS (CONTINUED)				PAGE 2 OF 22	
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____					
32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE			32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
			32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
37. CHECK NUMBER					
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY			
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT 41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE	42a. RECEIVED BY <i>(Print)</i>		
			42b. RECEIVED AT <i>(Location)</i>		
			42c. DATE REC'D <i>(YY/MM/DD)</i>	42d. TOTAL CONTAINERS	

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Enterprise Unified Capabilities FFP				\$0.00

NET AMT	\$0.00
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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA	BTI Funding FFP Enterprise Unified Capabilities shall be performed in accordance with section 5.1.1 of the PWS.	1	Each	\$4,612,308.95	\$4,612,308.95

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.
 FOB: Destination
 MILSTRIP: M9545020SU94611
 PURCHASE REQUEST NUMBER: M9545020SU94611
 PSC CD: 7010

NET AMT	\$4,612,308.95
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ACRN AA	\$4,612,308.95
CIN: M9545020SU946110001AA	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AB		1	Each	\$205,717.67	\$205,717.67

NGEN Funding

FFP

Enterprise Unified Capabilities shall be performed in accordance with section 5.1.1 of the PWS.

FOB: Destination

MILSTRIP: M9545020SU04976

PURCHASE REQUEST NUMBER: M9545020SU04976

PSC CD: 7010

NET AMT	\$205,717.67
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ACRN AB

CIN: M9545020SU049760001AB

\$205,717.67

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002		1	Each	\$2,001,640.68	\$2,001,640.68

Supporting Infrastructure & Power System

FFP

Supporting Infrastructure & Power Systems shall be performed in accordance with section 5.1.3 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU94611

PURCHASE REQUEST NUMBER: M9545020SU94611

PSC CD: 7010

NET AMT	\$2,001,640.68
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ACRN AA

CIN: M9545020SU946110002

\$2,001,640.68

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1	Each	\$7,516,787.37	\$7,516,787.37

Base Area Network (BAN)

FFP

BAN shall be performed in accordance with section 5.1.2 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU04976

PURCHASE REQUEST NUMBER: M9545020SU04976

PSC CD: 7010

NET AMT	\$7,516,787.37
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ACRN AB

CIN: M9545020SU049760002

\$7,516,787.37

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004					\$0.00

Unification/Convergence

FFP

NET AMT	\$0.00
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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA		1	Each	\$2,768,794.33	\$2,768,794.33

BTI Funding

FFP

Unification/Convergence shall be performed in accordance with section 5.1.2 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU94611

PURCHASE REQUEST NUMBER: M9545020SU94611

PSC CD: 7010

NET AMT

\$2,768,794.33

ACRN AA

\$2,768,794.33

CIN: M9545020SU946110004AA

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AB		1	Each	\$6,923,946.24	\$6,923,946.24

NGEN Funding

FFP

Unification/Convergence shall be performed in accordance with section 5.1.2 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU04976

PURCHASE REQUEST NUMBER: M9545020SU04976

PSC CD: 7010

NET AMT

\$6,923,946.24

ACRN AB

\$6,923,946.24

CIN: M9545020SU049760004AB

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	N/A
0001AA	Destination	Government	Destination	Government
0001AB	Destination	Government	Destination	Government
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government
0004	N/A	N/A	N/A	N/A
0004AA	Destination	Government	Destination	Government
0004AB	Destination	Government	Destination	Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
0001	N/A	N/A	N/A	N/A
0001AA	28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
0001AB	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0002	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0003	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0004	N/A	N/A	N/A	N/A
0004AA	28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

0004AB 28-FEB-2022

1

(SAME AS PREVIOUS LOCATION)
FOB: Destination

M67854

ACCOUNTING AND APPROPRIATION DATA

AA: 17911094635 310 67854 067443 2D 463500
 COST CODE: 0SU94611101S
 AMOUNT: \$9,382,743.96

AB: 17011094625 310 67854 067443 2D 462500
 COST CODE: 0SU04976106G
 AMOUNT: \$14,646,451.28

ACRN	CLIN/SLIN	CIN	AMOUNT
AA	0001AA	M9545020SU946110001AA	\$4,612,308.95
	0002	M9545020SU946110002	\$2,001,640.68
	0004AA	M9545020SU946110004AA	\$2,768,794.33
AB	0001AB	M9545020SU049760001AB	\$205,717.67
	0003	M9545020SU049760002	\$7,516,787.37
	0004AB	M9545020SU049760004AB	\$6,923,946.24

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	NOV 2013
52.203-3	Gratuities	APR 1984
52.203-6 Alt I	Restrictions On Subcontractor Sales To The Government (Sep 2006) -- Alternate I	OCT 1995
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	APR 2014
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	OCT 2018
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-18	Commercial and Government Entity Code Maintenance	JUL 2016
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.212-3	Offeror Representations and Certifications--Commercial Items	AUG 2020
52.212-4	Contract Terms and Conditions--Commercial Items	OCT 2018
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-19	Child Labor -- Cooperation with Authorities and Remedies	JAN 2020
52.222-50	Combating Trafficking in Persons	JAN 2019

52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	AUG 2011
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.232-1	Payments	APR 1984
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	DEC 2013
52.233-3	Protest After Award	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.243-1	Changes--Fixed Price	AUG 1987
52.243-6	Change Order Accounting	APR 1984
52.246-2	Inspection Of Supplies--Fixed Price	AUG 1996
52.246-16	Responsibility For Supplies	APR 1984
52.246-23	Limitation Of Liability	FEB 1997
52.246-24	Limitation Of Liability--High-Value Items	FEB 1997
52.247-34	F.O.B. Destination	NOV 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7003	Agency Office of the Inspector General	AUG 2019
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Antiterrorism Awareness Training for Contractors.	FEB 2019
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	OCT 2016
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting	DEC 2019
252.204-7014	Limitations on the Use or Disclosure of Information by Litigation Support Contractors	MAY 2016
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	MAY 2016
252.204-7018	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services	DEC 2019
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.211-7008	Use of Government-Assigned Serial Numbers	SEP 2010
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7012	Preference For Certain Domestic Commodities	DEC 2017
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	APR 2019
252.227-7015	Technical Data--Commercial Items	FEB 2014
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 2016
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7010	Levies on Contract Payments	DEC 2006
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013

CLAUSES INCORPORATED BY FULL TEXT

52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)

(a) Definitions. As used in this clause--

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means--

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- (2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
- (3) Telecommunications or video surveillance services provided by such entities or using such equipment; or
- (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means--

- (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled--
 - (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
 - (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) Exceptions. This clause does not prohibit contractors from providing--

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (DEVIATION 2018-O0021) (AUG 2020)

(a) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (a) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(b)(1) Notwithstanding the requirements of any other clauses of this contract, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (b) (1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (OCT 2015) (41 U.S.C. 3509).

(ii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).

(iii) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).

(iv) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020) (Section 889(a)(1)(A) of Pub. L. 115-232).

(v) 52.219-8, Utilization of Small Business Concerns (OCT 2018) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(vi) 52.222-21, Prohibition of Segregated Facilities (APR 2015).

(vii) 52.222-26, Equal Opportunity (SEP 2016) (E.O. 11246).

(viii) 52.222-35, Equal Opportunity for Veterans (OCT 2015) (38 U.S.C. 4212).

(ix) 52.222-36, Equal Opportunity for Workers with Disabilities (JUL 2014) (29 U.S.C. 793).

(x) 52.222-37, Employment Reports on Veterans (FEB 2016) (38 U.S.C. 4212).

(xi) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.

(xii) 52.222-41, Service Contract Labor Standards (AUG 2018) (41 U.S.C. chapter 67).

(xiii)(A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).

(B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

(xiv) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (MAY 2014) (41 U.S.C. chapter 67).

(xv) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (MAY 2014) (41 U.S.C. chapter 67).

(xvi) 52.222-54, Employment Eligibility Verification (OCT 2015) (E.O. 12989).

(xvii) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2015).

(xviii) 52.222-62 Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706).

(xix)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).

(B) Alternate I (JAN 2017) of 52.224-3.

(xx) 52.225-26, Contractors Performing Private Security Functions Outside the United States (OCT 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xxi) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xxii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor MAY include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<https://acquisition.gov/browse/index/far>

(End of clause)

252.211-7003 ITEM UNIQUE IDENTIFICATION AND VALUATION (MAR 2016)

(a) Definitions. As used in this clause-

Automatic identification device means a device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.

Concatenated unique item identifier means--

(1) For items that are serialized within the enterprise identifier, the linking together of the unique identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or

(2) For items that are serialized within the original part, lot, or batch number, the linking together of the unique identifier data elements in order of the issuing agency code; enterprise identifier; original part, lot, or batch number; and serial number within the original part, lot, or batch number.

Data Matrix means a two-dimensional matrix symbology, which is made up of square or, in some cases, round modules arranged within a perimeter finder pattern and uses the Error Checking and Correction 200 (ECC200) specification found within International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 16022.

Data qualifier means a specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.

DoD recognized unique identification equivalent means a unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/pdi/uid/iuid_equivalents.html.

DoD item unique identification means a system of marking items delivered to DoD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier and a unique serial number. For items that are serialized within the part, lot, or batch number within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier; the original part, lot, or batch number; and the serial number.

Enterprise means the entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.

Enterprise identifier means a code that is uniquely assigned to an enterprise by an issuing agency.

Government's unit acquisition cost means--

- (1) For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery;
- (2) For cost-type or undefinitized line, subline, or exhibit line items, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery; and
- (3) For items produced under a time-and-materials contract, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery.

Issuing agency means an organization responsible for assigning a globally unique identifier to an enterprise, as indicated in the Register of Issuing Agency Codes for ISO/IEC 15459, located at http://www.aimglobal.org/?Reg_Authority15459.

Issuing agency code means a code that designates the registration (or controlling) authority for the enterprise identifier.

Item means a single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

Lot or batch number means an identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.

Machine-readable means an automatic identification technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.

Original part number means a combination of numbers or letters assigned by the enterprise at item creation to a class of items with the same form, fit, function, and interface.

Parent item means the item assembly, intermediate component, or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.

Serial number within the enterprise identifier means a combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

Serial number within the part, lot, or batch number means a combination of numbers or letters assigned by the enterprise to an item that provides for the differentiation of that item from any other like item within a part, lot, or batch number assignment.

Serialization within the enterprise identifier means each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.

Serialization within the part, lot, or batch number means each item of a particular part, lot, or batch number is assigned a unique serial number within that part, lot, or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot, or batch number within the enterprise identifier.

Type designation means a combination of letters and numerals assigned by the Government to a major end item, assembly or subassembly, as appropriate, to provide a convenient means of differentiating between items having the same basic name and to indicate modifications and changes thereto.

Unique item identifier means a set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated unique item identifier or a DoD recognized unique identification equivalent.

Unique item identifier type means a designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/pdi/uid/uii_types.html.

(b) The Contractor shall deliver all items under a contract line, subline, or exhibit line item.

(c) Unique item identifier. (1) The Contractor shall provide a unique item identifier for the following:

(i) Delivered items for which the Government's unit acquisition cost is \$5,000 or more, except for the following line items:

Contract line, subline, or exhibit line item No.	Item description
SEE SCHEDULE	

(ii) Items for which the Government's unit acquisition cost is less than \$5,000 that are identified in the Schedule or the following table:

Contract line, subline, or exhibit line item No.	Item description
N/A	

(If items are identified in the Schedule, insert "See Schedule" in this table.)

(iii) Subassemblies, components, and parts embedded within delivered items, items with warranty requirements, DoD serially managed reparable and DoD serially managed nonreparable as specified in Attachment Number ----.

(iv) Any item of special tooling or special test equipment as defined in FAR 2.101 that have been designated for preservation and storage for a Major Defense Acquisition Program as specified in Attachment Number ----.

(v) Any item not included in paragraphs (c)(1)(i), (ii), (iii), or

(iv) of this clause for which the contractor creates and marks a unique item identifier for traceability.

(2) The unique item identifier assignment and its component data element combination shall not be duplicated on any other item marked or registered in the DoD Item Unique Identification Registry by the contractor.

(3) The unique item identifier component data elements shall be marked on an item using two dimensional data matrix symbology that complies with ISO/IEC International Standard 16022, Information technology--International symbology specification--Data matrix; ECC200 data matrix specification.

(4) Data syntax and semantics of unique item identifiers. The Contractor shall ensure that--

(i) The data elements (except issuing agency code) of the unique item identifier are encoded within the data matrix symbol that is marked on the item using one of the following three types of data qualifiers, as determined by the Contractor:

(A) Application Identifiers (AIs) (Format Indicator 05 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(B) Data Identifiers (DIs) (Format Indicator 06 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(C) Text Element Identifiers (TEIs) (Format Indicator 12 of ISO/IEC International Standard 15434), in accordance with the Air Transport Association Common Support Data Dictionary; and

(ii) The encoded data elements of the unique item identifier conform to the transfer structure, syntax, and coding of messages and data formats specified for Format Indicators 05, 06, and 12 in ISO/IEC International Standard 15434, Information Technology-Transfer Syntax for High Capacity Automatic Data Capture Media.

(5) Unique item identifier.

(i) The Contractor shall--

(A) Determine whether to--

(1) Serialize within the enterprise identifier;

(2) Serialize within the part, lot, or batch number; or

(3) Use a DoD recognized unique identification equivalent (e.g. Vehicle Identification Number); and

(B) Place the data elements of the unique item identifier (enterprise identifier; serial number; DoD recognized unique identification equivalent; and for serialization within the part, lot, or batch number only: Original part, lot, or batch number) on items requiring marking by paragraph (c)(1) of this clause, based on the criteria provided in MIL-STD-130, Identification Marking of U.S. Military Property, latest version;

(C) Label shipments, storage containers and packages that contain uniquely identified items in accordance with the requirements of MIL-STD-129, Military Marking for Shipment and Storage, latest version; and

(D) Verify that the marks on items and labels on shipments, storage containers, and packages are machine readable and conform to the applicable standards. The contractor shall use an automatic identification technology device for this verification that has been programmed to the requirements of Appendix A, MIL-STD-130, latest version.

(ii) The issuing agency code--

(A) Shall not be placed on the item; and

(B) Shall be derived from the data qualifier for the enterprise identifier.

(d) For each item that requires item unique identification under paragraph (c)(1)(i), (ii), or (iv) of this clause or when item unique identification is provided under paragraph (c)(1)(v), in addition to the information provided as part of the Material Inspection and Receiving Report specified elsewhere in this contract, the Contractor shall report at the time of delivery, as part of the Material Inspection and Receiving Report, the following information:

(1) Unique item identifier.

(2) Unique item identifier type.

(3) Issuing agency code (if concatenated unique item identifier is used).

(4) Enterprise identifier (if concatenated unique item identifier is used).

(5) Original part number (if there is serialization within the original part number).

(6) Lot or batch number (if there is serialization within the lot or batch number).

(7) Current part number (optional and only if not the same as the original part number).

(8) Current part number effective date (optional and only if current part number is used).

(9) Serial number (if concatenated unique item identifier is used).

(10) Government's unit acquisition cost.

(11) Unit of measure.

(12) Type designation of the item as specified in the contract schedule, if any.

(13) Whether the item is an item of Special Tooling or Special Test Equipment.

(14) Whether the item is covered by a warranty.

(e) For embedded subassemblies, components, and parts that require DoD unique item identification under paragraph (c)(1)(iii) of this clause, the Contractor shall report as part of, or associated with, the Material Inspection and Receiving Report specified elsewhere in this contract, the following information:

(1) Unique item identifier of the parent item under paragraph (c)(1) of this clause that contains the embedded subassembly, component, or part.

(2) Unique item identifier of the embedded subassembly, component, or part.

(3) Unique item identifier type.**

(4) Issuing agency code (if concatenated unique item identifier is used).**

(5) Enterprise identifier (if concatenated unique item identifier is used).**

(6) Original part number (if there is serialization within the original part number).**

- (7) Lot or batch number (if there is serialization within the lot or batch number).**
- (8) Current part number (optional and only if not the same as the original part number).**
- (9) Current part number effective date (optional and only if current part number is used).**
- (10) Serial number (if concatenated unique item identifier is used).**
- (11) Description.

** Once per item.

(f) The Contractor shall submit the information required by paragraphs (d) and (e) of this clause as follows:

(1) End items shall be reported using the receiving report capability in Wide Area WorkFlow (WAWF) in accordance with the clause at 252.232-7003. If WAWF is not required by this contract, and the contractor is not using WAWF, follow the procedures at <http://dodprocurementtoolbox.com/site/uidregistry/>.

(2) Embedded items shall be reported by one of the following methods--

(i) Use of the embedded items capability in WAWF;

(ii) Direct data submission to the IUID Registry following the procedures and formats at <http://dodprocurementtoolbox.com/site/uidregistry/>; or

(iii) Via WAWF as a deliverable attachment for exhibit line item number (fill in) ----, Unique Item Identifier Report for Embedded Items, Contract Data Requirements List, DD Form 1423.

(g) Subcontracts. If the Contractor acquires by subcontract any items for which item unique identification is required in accordance with paragraph (c)(1) of this clause, the Contractor shall include this clause, including this paragraph (g), in the applicable subcontract(s), including subcontracts for commercial items.

(End of clause)

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (DEC 2018)

(a) Definitions. As used in this clause—

“Department of Defense Activity Address Code (DoDAAC)” is a six position code that uniquely identifies a unit, activity, or organization.

“Document type” means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

“Local processing office (LPO)” is the office responsible for payment certification when payment certification is done external to the entitlement system.

“Payment request” and “receiving report” are defined in the clause at 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(b) Electronic invoicing. The WAWF system provides the method to electronically process vendor payment requests and receiving reports, as authorized by Defense Federal Acquisition Regulation Supplement (DFARS) 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall—

(1) Have a designated electronic business point of contact in the System for Award Management at <https://www.sam.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor shall use the following information when submitting payment requests and receiving reports in WAWF for this contract or task or delivery order:

(1) Document type. The Contractor shall submit payment requests using the following document type(s):

COMBO

(i) For cost-type line items, including labor-hour or time-and-materials, submit a cost voucher.

(ii) For fixed price line items—

(A) That require shipment of a deliverable, submit the invoice and receiving report specified by the Contracting Officer.

(B) For services that do not require shipment of a deliverable, submit either the Invoice 2in1, which meets the requirements for the invoice and receiving report, or the applicable invoice and receiving report, as specified by the Contracting Officer.

(iii) For customary progress payments based on costs incurred, submit a progress payment request.

(iv) For performance based payments, submit a performance based payment request.

(v) For commercial item financing, submit a commercial item financing request.

(2) Fast Pay requests are only permitted when Federal Acquisition Regulation (FAR) 52.213-1 is included in the contract.

[Note: The Contractor may use a WAWF “combo” document type to create some combinations of invoice and receiving report in one step.]

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

<i>Field Name in WAWF</i>	<i>Data to be entered in WAWF</i>
Pay Official DoDAAC	M67443
Issue By DoDAAC	M67854
Admin DoDAAC**	M67854
Inspect By DoDAAC	M67854
Ship To Code	_____
Ship From Code	_____
Mark For Code	_____
Service Approver (DoDAAC)	M67854 PM10
Service Acceptor (DoDAAC)	M67854 PM10
Accept at Other DoDAAC	_____
LPO DoDAAC	_____
DCAA Auditor DoDAAC	_____
Other DoDAAC(s)	_____

(4) Payment request. The Contractor shall ensure a payment request includes documentation appropriate to the type of payment request in accordance with the payment clause, contract financing clause, or Federal Acquisition Regulation 52.216-7, Allowable Cost and Payment, as applicable.

(5) Receiving report. The Contractor shall ensure a receiving report meets the requirements of DFARS Appendix F.

(g) WAWF point of contact.

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

theresa.walters@usmc.mil

(2) Contact the WAWF helpdesk at 866-618-5988, if assistance is needed.

(End of clause)

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Nodes and Equipment per 36 Site		31-AUG-2020
Attachment 2	Performance Specification	80	28-SEP-2020
Attachment 3	CDRL A001	3	18-JUN-2020

Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	
Attachment 8	DID for CDRL A003	3	

PAYMENT SCHEDULE

PAYMENT SCHEDULE – MCB QUANTICO (CLINs 0001 - 0004)		
MILESTONE	PERCENT	AMOUNT
Completion of Government Preliminary (65%) Engineering Design Review	25.00%	\$6,007,298.81
Completion of Government Final (95%) Engineering Design Review	35.00%	\$8,410,218.33
Completion of Power Systems Acceptance Testing and QC Inspection	10.00%	\$2,402,919.52
Completion of Telecommunications Systems Acceptance Testing	15.00%	\$3,604,379.29
Final Government Acceptance/Project Close-out	15.00%	\$3,604,379.29
TOTAL		\$24,029,195.24

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER SEE SCHEDULE		PAGE 1 OF 22	
2. CONTRACT NO. M6785420C4919		3. AWARD/EFFECTIVE DATE 30-Sep-2020		4. ORDER NUMBER		5. SOLICITATION NUMBER M6785420R4917	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME ANTHONY GENAO		b. TELEPHONE NUMBER (No Collect Calls) 703 784-6575		6. SOLICITATION ISSUE DATE 23-Jun-2020	
9. ISSUED BY COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134 TEL: 703-784-6575 FAX:		CODE M67854		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input checked="" type="checkbox"/> SET ASIDE: 100% FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input checked="" type="checkbox"/> 8(A) NAICS: 541512 SIZE STANDARD: \$30,000,000			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input checked="" type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS Net 30 Days		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING	
15. DELIVER TO MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134		CODE M67854		16. ADMINISTERED BY SEE ITEM 9			
17a. CONTRACTOR/ OFFEROR TECHNOLOGY TRENDS GROUP, LLC (b)(6) 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2586 TELEPHONE NO. (b)(6)		CODE 481E1 FACILITY CODE		18a. PAYMENT WILL BE MADE BY DFAS COLUMBUS DEFENSE FINANCE & ACCOUNTING SERVICE COLUMBUS DFAS-JDCBB/CO PO BOX 182317 COLUMBUS OH 43218-2317			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input checked="" type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
SEE SCHEDULE							
25. ACCOUNTING AND APPROPRIATION DATA See Schedule						26. TOTAL AWARD AMOUNT (For Govt. Use Only) \$24,029,195.24	
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3, 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED <input checked="" type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED							
<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED. REF: Proposal dated 31 August 2020				<input type="checkbox"/> 29. AWARD OF CONTRACT: REF. OFFER DATED <u>31-Aug-2020</u> , YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS: SEE SCHEDULE			
30a. SIGNATURE OF OFFEROR/CONTRACTOR (b)(6)				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER) EDWARDS.BRENDA.D.1102192857 Digitally signed by EDWARDS.BRENDA.D.1102192857 Date: 2020.09.30 06:34:48 -04'00'			
30b. (b)(6)	30c. DATE SIGNED 9/29/2020			31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) BRENDA D. EDWARDS TEL: 703-784-6541 EMAIL: Brenda.Edwards@usmc.mil		31c. DATE SIGNED 30 Sep 2020	

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS (CONTINUED)				PAGE 2 OF 22	
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____					
32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE			32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
			32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT		37. CHECK NUMBER
<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL			<input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY			
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT 41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE	42a. RECEIVED BY <i>(Print)</i>		
			42b. RECEIVED AT <i>(Location)</i>		
			42c. DATE REC'D <i>(YY/MM/DD)</i>	42d. TOTAL CONTAINERS	

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Enterprise Unified Capabilities FFP				(b)(4)

NET AMT

(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA	BTI Funding FFP	1	Each	(b)(4)	(b)(4)

Enterprise Unified Capabilities shall be performed in accordance with section 5.1.1 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU94611

PURCHASE REQUEST NUMBER: M9545020SU94611

PSC CD: 7010

NET AMT

(b)(4)

ACRN AA

CIN: M9545020SU946110001AA

(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AB	NGEN Funding FFP Enterprise Unified Capabilities shall be performed in accordance with section 5.1.1 of the PWS. FOB: Destination MILSTRIP: M9545020SU04976 PURCHASE REQUEST NUMBER: M9545020SU04976 PSC CD: 7010	1	Each	(b)(4)	(b)(4)
NET AMT					(b)(4)
ACRN AB CIN: M9545020SU049760001AB					(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Supporting Infrastructure & Power System FFP Supporting Infrastructure & Power Systems shall be performed in accordance with section 5.1.3 of the PWS. NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination MILSTRIP: M9545020SU94611 PURCHASE REQUEST NUMBER: M9545020SU94611 PSC CD: 7010	1	Each	(b)(4)	(b)(4)
NET AMT					(b)(4)
ACRN AA CIN: M9545020SU946110002					(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1	Each	(b)(4)	(b)(4)

Base Area Network (BAN)

FFP

BAN shall be performed in accordance with section 5.1.2 of the PWS.

NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent.

FOB: Destination

MILSTRIP: M9545020SU04976

PURCHASE REQUEST NUMBER: M9545020SU04976

PSC CD: 7010

NET AMT

(b)(4)

ACRN AB

CIN: M9545020SU049760002

(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004					(b)(4)

Unification/Convergence

FFP

NET AMT

(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA	BTI Funding FFP Unification/Convergence shall be performed in accordance with section 5.1.2 of the PWS. NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination MILSTRIP: M9545020SU94611 PURCHASE REQUEST NUMBER: M9545020SU94611 PSC CD: 7010	1	Each	(b)(4)	(b)(4)
NET AMT					(b)(4)
ACRN AA CIN: M9545020SU946110004AA					(b)(4)

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AB	NGEN Funding FFP Unification/Convergence shall be performed in accordance with section 5.1.2 of the PWS. NOTE: The requirements in DFARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination MILSTRIP: M9545020SU04976 PURCHASE REQUEST NUMBER: M9545020SU04976 PSC CD: 7010	1	Each	(b)(4)	(b)(4)
NET AMT					(b)(4)
ACRN AB CIN: M9545020SU049760004AB					(b)(4)

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	N/A
0001AA	Destination	Government	Destination	Government
0001AB	Destination	Government	Destination	Government
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government
0004	N/A	N/A	N/A	N/A
0004AA	Destination	Government	Destination	Government
0004AB	Destination	Government	Destination	Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
0001	N/A	N/A	N/A	N/A
0001AA	28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
0001AB	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0002	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0003	28-FEB-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0004	N/A	N/A	N/A	N/A
0004AA	28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

0004AB 28-FEB-2022

1

(SAME AS PREVIOUS LOCATION)
FOB: Destination

M67854

ACCOUNTING AND APPROPRIATION DATA

AA: 17911094635 310 67854 067443 2D 463500
 COST CODE: 0SU94611101S
 AMOUNT: (b)(4)

AB: 17011094625 310 67854 067443 2D 462500
 COST CODE: 0SU04976106G
 AMOUNT: (b)(4)

ACRN	CLIN/SLIN	CIN	AMOUNT
AA	0001AA	M9545020SU946110001AA	(b)(4)
	0002	M9545020SU946110002	
	0004AA	M9545020SU946110004AA	
AB	0001AB	M9545020SU049760001AB	
	0003	M9545020SU049760002	
	0004AB	M9545020SU049760004AB	

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	NOV 2013
52.203-3	Gratuities	APR 1984
52.203-6 Alt I	Restrictions On Subcontractor Sales To The Government (Sep 2006) -- Alternate I	OCT 1995
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	APR 2014
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	OCT 2018
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-18	Commercial and Government Entity Code Maintenance	JUL 2016
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.212-3	Offeror Representations and Certifications--Commercial Items	AUG 2020
52.212-4	Contract Terms and Conditions--Commercial Items	OCT 2018
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-19	Child Labor -- Cooperation with Authorities and Remedies	JAN 2020
52.222-50	Combating Trafficking in Persons	JAN 2019

52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	AUG 2011
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.232-1	Payments	APR 1984
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	DEC 2013
52.233-3	Protest After Award	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.243-1	Changes--Fixed Price	AUG 1987
52.243-6	Change Order Accounting	APR 1984
52.246-2	Inspection Of Supplies--Fixed Price	AUG 1996
52.246-16	Responsibility For Supplies	APR 1984
52.246-23	Limitation Of Liability	FEB 1997
52.246-24	Limitation Of Liability--High-Value Items	FEB 1997
52.247-34	F.O.B. Destination	NOV 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7003	Agency Office of the Inspector General	AUG 2019
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Antiterrorism Awareness Training for Contractors.	FEB 2019
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	OCT 2016
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting	DEC 2019
252.204-7014	Limitations on the Use or Disclosure of Information by Litigation Support Contractors	MAY 2016
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	MAY 2016
252.204-7018	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services	DEC 2019
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.211-7008	Use of Government-Assigned Serial Numbers	SEP 2010
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7012	Preference For Certain Domestic Commodities	DEC 2017
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	APR 2019
252.227-7015	Technical Data--Commercial Items	FEB 2014
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 2016
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7010	Levies on Contract Payments	DEC 2006
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013

CLAUSES INCORPORATED BY FULL TEXT

52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)

(a) Definitions. As used in this clause--

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means--

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- (2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
- (3) Telecommunications or video surveillance services provided by such entities or using such equipment; or
- (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means--

- (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled--
 - (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
 - (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) Exceptions. This clause does not prohibit contractors from providing--

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (DEVIATION 2018-O0021) (AUG 2020)

(a) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (a) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(b)(1) Notwithstanding the requirements of any other clauses of this contract, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (b) (1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (OCT 2015) (41 U.S.C. 3509).

(ii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).

(iii) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).

(iv) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020) (Section 889(a)(1)(A) of Pub. L. 115-232).

(v) 52.219-8, Utilization of Small Business Concerns (OCT 2018) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(vi) 52.222-21, Prohibition of Segregated Facilities (APR 2015).

(vii) 52.222-26, Equal Opportunity (SEP 2016) (E.O. 11246).

(viii) 52.222-35, Equal Opportunity for Veterans (OCT 2015) (38 U.S.C. 4212).

(ix) 52.222-36, Equal Opportunity for Workers with Disabilities (JUL 2014) (29 U.S.C. 793).

(x) 52.222-37, Employment Reports on Veterans (FEB 2016) (38 U.S.C. 4212).

(xi) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.

(xii) 52.222-41, Service Contract Labor Standards (AUG 2018) (41 U.S.C. chapter 67).

(xiii)(A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).

(B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

(xiv) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (MAY 2014) (41 U.S.C. chapter 67).

(xv) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (MAY 2014) (41 U.S.C. chapter 67).

(xvi) 52.222-54, Employment Eligibility Verification (OCT 2015) (E.O. 12989).

(xvii) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2015).

(xviii) 52.222-62 Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706).

(xix)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).

(B) Alternate I (JAN 2017) of 52.224-3.

(xx) 52.225-26, Contractors Performing Private Security Functions Outside the United States (OCT 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xxi) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xxii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor MAY include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<https://acquisition.gov/browse/index/far>

(End of clause)

252.211-7003 ITEM UNIQUE IDENTIFICATION AND VALUATION (MAR 2016)

(a) Definitions. As used in this clause-

Automatic identification device means a device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.

Concatenated unique item identifier means--

(1) For items that are serialized within the enterprise identifier, the linking together of the unique identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or

(2) For items that are serialized within the original part, lot, or batch number, the linking together of the unique identifier data elements in order of the issuing agency code; enterprise identifier; original part, lot, or batch number; and serial number within the original part, lot, or batch number.

Data Matrix means a two-dimensional matrix symbology, which is made up of square or, in some cases, round modules arranged within a perimeter finder pattern and uses the Error Checking and Correction 200 (ECC200) specification found within International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 16022.

Data qualifier means a specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.

DoD recognized unique identification equivalent means a unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/pdi/uid/iuid_equivalents.html.

DoD item unique identification means a system of marking items delivered to DoD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier and a unique serial number. For items that are serialized within the part, lot, or batch number within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier; the original part, lot, or batch number; and the serial number.

Enterprise means the entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.

Enterprise identifier means a code that is uniquely assigned to an enterprise by an issuing agency.

Government's unit acquisition cost means--

(1) For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery;

(2) For cost-type or undefinitized line, subline, or exhibit line items, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery; and

(3) For items produced under a time-and-materials contract, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery.

Issuing agency means an organization responsible for assigning a globally unique identifier to an enterprise, as indicated in the Register of Issuing Agency Codes for ISO/IEC 15459, located at http://www.aimglobal.org/?Reg_Authority15459.

Issuing agency code means a code that designates the registration (or controlling) authority for the enterprise identifier.

Item means a single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

Lot or batch number means an identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.

Machine-readable means an automatic identification technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.

Original part number means a combination of numbers or letters assigned by the enterprise at item creation to a class of items with the same form, fit, function, and interface.

Parent item means the item assembly, intermediate component, or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.

Serial number within the enterprise identifier means a combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

Serial number within the part, lot, or batch number means a combination of numbers or letters assigned by the enterprise to an item that provides for the differentiation of that item from any other like item within a part, lot, or batch number assignment.

Serialization within the enterprise identifier means each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.

Serialization within the part, lot, or batch number means each item of a particular part, lot, or batch number is assigned a unique serial number within that part, lot, or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot, or batch number within the enterprise identifier.

Type designation means a combination of letters and numerals assigned by the Government to a major end item, assembly or subassembly, as appropriate, to provide a convenient means of differentiating between items having the same basic name and to indicate modifications and changes thereto.

Unique item identifier means a set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated unique item identifier or a DoD recognized unique identification equivalent.

Unique item identifier type means a designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/pdi/uid/uii_types.html.

(b) The Contractor shall deliver all items under a contract line, subline, or exhibit line item.

(c) Unique item identifier. (1) The Contractor shall provide a unique item identifier for the following:

(i) Delivered items for which the Government's unit acquisition cost is \$5,000 or more, except for the following line items:

Contract line, subline, or exhibit line item No.	Item description
SEE SCHEDULE	

(ii) Items for which the Government's unit acquisition cost is less than \$5,000 that are identified in the Schedule or the following table:

Contract line, subline, or exhibit line item No.	Item description
N/A	

(If items are identified in the Schedule, insert "See Schedule" in this table.)

(iii) Subassemblies, components, and parts embedded within delivered items, items with warranty requirements, DoD serially managed reparables and DoD serially managed nonreparables as specified in Attachment Number ----.

(iv) Any item of special tooling or special test equipment as defined in FAR 2.101 that have been designated for preservation and storage for a Major Defense Acquisition Program as specified in Attachment Number ----.

(v) Any item not included in paragraphs (c)(1)(i), (ii), (iii), or

(iv) of this clause for which the contractor creates and marks a unique item identifier for traceability.

(2) The unique item identifier assignment and its component data element combination shall not be duplicated on any other item marked or registered in the DoD Item Unique Identification Registry by the contractor.

(3) The unique item identifier component data elements shall be marked on an item using two dimensional data matrix symbology that complies with ISO/IEC International Standard 16022, Information technology--International symbology specification--Data matrix; ECC200 data matrix specification.

(4) Data syntax and semantics of unique item identifiers. The Contractor shall ensure that--

(i) The data elements (except issuing agency code) of the unique item identifier are encoded within the data matrix symbol that is marked on the item using one of the following three types of data qualifiers, as determined by the Contractor:

(A) Application Identifiers (AIs) (Format Indicator 05 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(B) Data Identifiers (DIs) (Format Indicator 06 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(C) Text Element Identifiers (TEIs) (Format Indicator 12 of ISO/IEC International Standard 15434), in accordance with the Air Transport Association Common Support Data Dictionary; and

(ii) The encoded data elements of the unique item identifier conform to the transfer structure, syntax, and coding of messages and data formats specified for Format Indicators 05, 06, and 12 in ISO/IEC International Standard 15434, Information Technology-Transfer Syntax for High Capacity Automatic Data Capture Media.

(5) Unique item identifier.

(i) The Contractor shall--

(A) Determine whether to--

(1) Serialize within the enterprise identifier;

(2) Serialize within the part, lot, or batch number; or

(3) Use a DoD recognized unique identification equivalent (e.g. Vehicle Identification Number); and

(B) Place the data elements of the unique item identifier (enterprise identifier; serial number; DoD recognized unique identification equivalent; and for serialization within the part, lot, or batch number only: Original part, lot, or batch number) on items requiring marking by paragraph (c)(1) of this clause, based on the criteria provided in MIL-STD-130, Identification Marking of U.S. Military Property, latest version;

(C) Label shipments, storage containers and packages that contain uniquely identified items in accordance with the requirements of MIL-STD-129, Military Marking for Shipment and Storage, latest version; and

(D) Verify that the marks on items and labels on shipments, storage containers, and packages are machine readable and conform to the applicable standards. The contractor shall use an automatic identification technology device for this verification that has been programmed to the requirements of Appendix A, MIL-STD-130, latest version.

(ii) The issuing agency code--

(A) Shall not be placed on the item; and

(B) Shall be derived from the data qualifier for the enterprise identifier.

(d) For each item that requires item unique identification under paragraph (c)(1)(i), (ii), or (iv) of this clause or when item unique identification is provided under paragraph (c)(1)(v), in addition to the information provided as part of the Material Inspection and Receiving Report specified elsewhere in this contract, the Contractor shall report at the time of delivery, as part of the Material Inspection and Receiving Report, the following information:

(1) Unique item identifier.

(2) Unique item identifier type.

(3) Issuing agency code (if concatenated unique item identifier is used).

(4) Enterprise identifier (if concatenated unique item identifier is used).

(5) Original part number (if there is serialization within the original part number).

(6) Lot or batch number (if there is serialization within the lot or batch number).

(7) Current part number (optional and only if not the same as the original part number).

(8) Current part number effective date (optional and only if current part number is used).

(9) Serial number (if concatenated unique item identifier is used).

(10) Government's unit acquisition cost.

(11) Unit of measure.

(12) Type designation of the item as specified in the contract schedule, if any.

(13) Whether the item is an item of Special Tooling or Special Test Equipment.

(14) Whether the item is covered by a warranty.

(e) For embedded subassemblies, components, and parts that require DoD unique item identification under paragraph (c)(1)(iii) of this clause, the Contractor shall report as part of, or associated with, the Material Inspection and Receiving Report specified elsewhere in this contract, the following information:

(1) Unique item identifier of the parent item under paragraph (c)(1) of this clause that contains the embedded subassembly, component, or part.

(2) Unique item identifier of the embedded subassembly, component, or part.

(3) Unique item identifier type.**

(4) Issuing agency code (if concatenated unique item identifier is used).**

(5) Enterprise identifier (if concatenated unique item identifier is used).**

(6) Original part number (if there is serialization within the original part number).**

- (7) Lot or batch number (if there is serialization within the lot or batch number).**
- (8) Current part number (optional and only if not the same as the original part number).**
- (9) Current part number effective date (optional and only if current part number is used).**
- (10) Serial number (if concatenated unique item identifier is used).**
- (11) Description.

** Once per item.

(f) The Contractor shall submit the information required by paragraphs (d) and (e) of this clause as follows:

(1) End items shall be reported using the receiving report capability in Wide Area WorkFlow (WAWF) in accordance with the clause at 252.232-7003. If WAWF is not required by this contract, and the contractor is not using WAWF, follow the procedures at <http://dodprocurementtoolbox.com/site/uidregistry/>.

(2) Embedded items shall be reported by one of the following methods--

(i) Use of the embedded items capability in WAWF;

(ii) Direct data submission to the IUID Registry following the procedures and formats at <http://dodprocurementtoolbox.com/site/uidregistry/>; or

(iii) Via WAWF as a deliverable attachment for exhibit line item number (fill in) ----, Unique Item Identifier Report for Embedded Items, Contract Data Requirements List, DD Form 1423.

(g) Subcontracts. If the Contractor acquires by subcontract any items for which item unique identification is required in accordance with paragraph (c)(1) of this clause, the Contractor shall include this clause, including this paragraph (g), in the applicable subcontract(s), including subcontracts for commercial items.

(End of clause)

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (DEC 2018)

(a) Definitions. As used in this clause—

“Department of Defense Activity Address Code (DoDAAC)” is a six position code that uniquely identifies a unit, activity, or organization.

“Document type” means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

“Local processing office (LPO)” is the office responsible for payment certification when payment certification is done external to the entitlement system.

“Payment request” and “receiving report” are defined in the clause at 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(b) Electronic invoicing. The WAWF system provides the method to electronically process vendor payment requests and receiving reports, as authorized by Defense Federal Acquisition Regulation Supplement (DFARS) 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall—

(1) Have a designated electronic business point of contact in the System for Award Management at <https://www.sam.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor shall use the following information when submitting payment requests and receiving reports in WAWF for this contract or task or delivery order:

(1) Document type. The Contractor shall submit payment requests using the following document type(s):
COMBO

(i) For cost-type line items, including labor-hour or time-and-materials, submit a cost voucher.

(ii) For fixed price line items—

(A) That require shipment of a deliverable, submit the invoice and receiving report specified by the Contracting Officer.

(B) For services that do not require shipment of a deliverable, submit either the Invoice 2in1, which meets the requirements for the invoice and receiving report, or the applicable invoice and receiving report, as specified by the Contracting Officer.

(iii) For customary progress payments based on costs incurred, submit a progress payment request.

(iv) For performance based payments, submit a performance based payment request.

(v) For commercial item financing, submit a commercial item financing request.

(2) Fast Pay requests are only permitted when Federal Acquisition Regulation (FAR) 52.213-1 is included in the contract.

[Note: The Contractor may use a WAWF “combo” document type to create some combinations of invoice and receiving report in one step.]

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

<i>Field Name in WAWF</i>	<i>Data to be entered in WAWF</i>
Pay Official DoDAAC	M67443
Issue By DoDAAC	M67854
Admin DoDAAC**	M67854
Inspect By DoDAAC	M67854
Ship To Code	_____
Ship From Code	_____
Mark For Code	_____
Service Approver (DoDAAC)	M67854 PM10
Service Acceptor (DoDAAC)	M67854 PM10
Accept at Other DoDAAC	_____
LPO DoDAAC	_____
DCAA Auditor DoDAAC	_____
Other DoDAAC(s)	_____

(4) Payment request. The Contractor shall ensure a payment request includes documentation appropriate to the type of payment request in accordance with the payment clause, contract financing clause, or Federal Acquisition Regulation 52.216-7, Allowable Cost and Payment, as applicable.

(5) Receiving report. The Contractor shall ensure a receiving report meets the requirements of DFARS Appendix F.

(g) WAWF point of contact.

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

theresa.walters@usmc.mil

(2) Contact the WAWF helpdesk at 866-618-5988, if assistance is needed.

(End of clause)

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Nodes and Equipment per 36 Site		31-AUG-2020
Attachment 2	Performance Specification	80	28-SEP-2020
Attachment 3	CDRL A001	3	18-JUN-2020

Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	
Attachment 8	DID for CDRL A003	3	

PAYMENT SCHEDULE

PAYMENT SCHEDULE – MCB QUANTICO (CLINs 0001 - 0004)		
MILESTONE	PERCENT	AMOUNT
Completion of Government Preliminary (65%) Engineering Design Review	(b)(4)	
Completion of Government Final (95%) Engineering Design Review		
Completion of Power Systems Acceptance Testing and QC Inspection		
Completion of Telecommunications Systems Acceptance Testing		
Final Government Acceptance/Project Close-out		
TOTAL		\$24,029.195.24



U. S. SMALL BUSINESS ADMINISTRATION

WASHINGTON METROPOLITAN AREA DISTRICT OFFICE

409 3rd Street, S.W., 2nd FLOOR

WASHINGTON, DC 20416

202-205 8800

www.sba.gov/dc

June 23, 2020

Ms. Brenda Edwards
Contracting Officer
Department of Defense
United States Marine Corps
2200 Lester Street
Quantico, VA 22134

REFERENCE: WMADO REQUIREMENT: 0353/20/0874

Dear Ms. Edwards:

This letter serves as acceptance of the offer submitted by your agency on **June 22, 2020**. In accordance with Section 8(a) of the Small Business Act (15 USC 637(a) (1)) and the Federal Acquisition Regulation (FAR) Part 19.8, and the executed Partnership Agreement between the U.S. Small Business Administration (SBA) and **Department of Defense, United States Marine Corps** SBA hereby accepts your offer of the requirement for the **Modernization of the Existing Communication Infrastructure at MCB Quantico** on behalf of:

Technology Trends Group, LLC
DUNS # 019805824

The estimated dollar value of this procurement (including all options) will be **\$17.4 million**. The assigned NAICS Code is **541512** corresponding size standard of **\$30 million**.

The offer letter indicates that this 8(a) opportunity is a:

☒ **X** new requirement or

☐ follow-on requirement

An analysis of this requirement in accordance with the provisions set forth in Title 13 of the Code of Federal Regulations (13 C.F.R. § 124.504(c)) was not conducted related to, Adverse Impact, based upon the procurement history revealed in the offer letter.

As stated, you have designated a North American Industry Classification System (NAICS) Code of **541512** for this requirement. This NAICS Code should not be changed without prior coordination with this office. The assigned SBA Requirement Number is **0353/20/0874**. Please reference this number should you need to contact this office relative to this procurement. The SBA Requirement Number should also be referenced on any resultant contract award documents.

Pursuant to the executed Partnership Agreement the **Department of Defense, United States Marine Corps** is authorized to negotiate directly with the 8(a) BD Participant. SBA reserves the right to be present at an Agency's negotiations with the 8(a) BD Participant.

Under the terms and conditions of the Partnership Agreement, you are to execute and distribute one copy of the contract, including task orders, modifications, and purchase orders to our office within 15 business days of the award. The SBA must be consulted prior to any changes that affect the scope of the contract.

In addition, the **Department of Defense, United States Marine Corps** shall retain the responsibility for compliance with the limitations on subcontracting requirements and all applicable provisions of FAR Section 52.219-14. Upon detecting any violations of the Ostensible Subcontracting rule, procuring agencies should immediately notify the SBA's Headquarters office via an email to:
BDManagement&TechnicalAssistance@sba.gov.

In the event that this requirement does not result in a contract award, please notify the SBA's District Office.

If you have any questions regarding this acceptance letter, please contact the **8(a) BD Team** on **202-205-8800**.

Thank you for your continued support of the 8(a) BD Program.

Sincerely,

Ifeyinwa Nwankwo

Business Opportunity Specialist
8(a) BD Team
8(a) Business Development

REMINDER:

Forward Offer Letters To: dcofferletters@sba.gov

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER		PAGE 1 OF 34	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER M6785420R4917	
6. SOLICITATION ISSUE DATE 23-Jun-2020		7. FOR SOLICITATION INFORMATION CALL:		a. NAME ANTHONY GENAO		b. TELEPHONE NUMBER (No Collect Calls) 703 784-6575	
8. OFFER DUE DATE/LOCAL TIME 12:00 PM 23 Jul 2020		9. ISSUED BY CODE M67854 COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134 TEL: 703-784-6575 FAX:		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input checked="" type="checkbox"/> SET ASIDE: <u>100</u> % FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input checked="" type="checkbox"/> 8(A) NAICS: 541512 SIZE STANDARD: \$30,000,000			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING	
15. DELIVER TO CODE M67854 MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 TEL: 703-784-4939 FAX:		16. ADMINISTERED BY CODE					
17a. CONTRACTOR/OFFEROR CODE FACILITY CODE TELEPHONE NO.		18a. PAYMENT WILL BE MADE BY CODE					
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE						
25. ACCOUNTING AND APPROPRIATION DATA						26. TOTAL AWARD AMOUNT (For Govt. Use Only)	
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED							
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED							
<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>1</u> COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED.				<input type="checkbox"/> 29. AWARD OF CONTRACT: REF. OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) TEL: EMAIL:		31c. DATE SIGNED	

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS (CONTINUED)				PAGE 2 OF 34	
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____					
32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE			32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
			32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
37. CHECK NUMBER					
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY			
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT 41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE	42a. RECEIVED BY <i>(Print)</i>		
			42b. RECEIVED AT <i>(Location)</i>		
			42c. DATE REC'D <i>(YY/MM/DD)</i>	42d. TOTAL CONTAINERS	

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Enterprise Unified Capabilities FFP Enterprise Unified Capabilities shall be performed in accordance with section 5.1.1 of the PWS. NOTE: The requirements in DF ARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination PSC CD: 7010	1	Each		

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Supporting Infrastructure & Power System FFP Supporting Infrastructure & Power Systems shall be performed in accordance with section 5.1.3 of the PWS. NOTE: The requirements in DF ARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination PSC CD: 7010	1	Each		

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Base Area Network (BAN) FFP BAN shall be performed in accordance with section 5.1.2 of the PWS. NOTE: The requirements in DF ARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination PSC CD: 7010	1	Each		

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	Unification/Convergence FFP Unification/Convergence shall be performed in accordance with section 5.1.2 of the PWS. NOTE: The requirements in DF ARS 252.211-7003, Item Identification and Valuation, are applicable for this line item. The contractor shall provide DoD unique identification or a DoD recognized unique identification equivalent. FOB: Destination PSC CD: 7010	1	Each		

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	Extended Warranty FFP Extended Warranty shall be performed in accordance with section 5.5.4 of the PWS. Extended one-year warranty in addition to the warranty provided with the initial equipment purchase for a total of a two-year warranty. FOB: Destination PSC CD: 7010	1	Each		

NET AMT

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government
0004	Destination	Government	Destination	Government
0005	Destination	Government	Destination	Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
0001	14-MAR-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
0002	14-MAR-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854

0003	14-MAR-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0004	14-MAR-2022	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854
0005	14-MAR-2023	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	M67854

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	NOV 2013
52.203-3	Gratuities	APR 1984
52.203-6 Alt I	Restrictions On Subcontractor Sales To The Government (Sep 2006) -- Alternate I	OCT 1995
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	APR 2014
52.204-7	System for Award Management	OCT 2018
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	OCT 2018
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-16	Commercial and Government Entity Code Reporting	JUL 2016
52.204-17	Ownership or Control of Offeror	JUL 2016
52.204-18	Commercial and Government Entity Code Maintenance	JUL 2016
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.209-7	Information Regarding Responsibility Matters	OCT 2018
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.212-1 (Dev)	Instructions to Offerors - Commercial Items. (DEVIATION 2018-O0018)	MAR 2020
52.212-4	Contract Terms and Conditions--Commercial Items	OCT 2018
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-19	Child Labor -- Cooperation with Authorities and Remedies	JAN 2020
52.222-24	Preaward On-Site Equal Opportunity Compliance Evaluation	FEB 1999
52.222-50	Combating Trafficking in Persons	JAN 2019
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	AUG 2011
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.232-1	Payments	APR 1984
52.233-3	Protest After Award	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.243-1	Changes--Fixed Price	AUG 1987
52.243-6	Change Order Accounting	APR 1984
52.246-2	Inspection Of Supplies--Fixed Price	AUG 1996
52.246-16	Responsibility For Supplies	APR 1984

52.246-23	Limitation Of Liability	FEB 1997
52.246-24	Limitation Of Liability--High-Value Items	FEB 1997
52.247-34	F.O.B. Destination	NOV 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7003	Agency Office of the Inspector General	AUG 2019
252.203-7005	Representation Relating to Compensation of Former DoD Officials	NOV 2011
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Antiterrorism Awareness Training for Contractors.	FEB 2019
252.204-7008	Compliance With Safeguarding Covered Defense Information Controls	OCT 2016
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	OCT 2016
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting	DEC 2019
252.204-7014	Limitations on the Use or Disclosure of Information by Litigation Support Contractors	MAY 2016
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	MAY 2016
252.204-7018	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services	DEC 2019
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.211-7008	Use of Government-Assigned Serial Numbers	SEP 2010
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7012	Preference For Certain Domestic Commodities	DEC 2017
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	APR 2019
252.227-7015	Technical Data--Commercial Items	FEB 2014
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 2016
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013

CLAUSES INCORPORATED BY FULL TEXT

52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (DEC 2019)

The Offeror shall not complete the representation in this provision if the Offeror has represented that it “does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument” in the provision at 52.204-26, Covered Telecommunications Equipment or Services--Representation, or in paragraph (v) of the provision at 52.212-3, Offeror Representations and Certifications--Commercial Items.

(a) Definitions. As used in this provision--

Covered telecommunications equipment or services, critical technology, and substantial or essential component have the meanings provided in clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Prohibition. Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractors are not prohibited from providing--

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(d) Representation. The Offeror represents that it [] will, [] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will” provide covered telecommunications equipment or services”, the Offeror shall provide the following information as part of the offer--

(1) A description of all covered telecommunications equipment and services offered (include brand; model number, such as original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable);

(2) Explanation of the proposed use of covered telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b) of this provision;

(3) For services, the entity providing the covered telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known); and

(4) For equipment, the entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (DEC 2019)

(a) Definitions. As used in this provision, “covered telecommunications equipment or services” has the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(c) Representation. The Offeror represents that it [____] does, [____] does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (MAR 2020)

The Offeror shall complete only paragraph (b) of this provision if the Offeror has completed the annual representations and certification electronically in the System for Award Management (SAM) accessed through <https://www.sam.gov>. If the Offeror has not completed the annual representations and certifications electronically, the Offeror shall complete only paragraphs (c) through (v) of this provision.

(a) Definitions. As used in this provision --

“Covered telecommunications equipment or services” has the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

“Economically disadvantaged women-owned small business (EDWOSB) Concern” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127. It automatically qualifies as a women-owned small business eligible under the WOSB Program.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

“Highest-level owner” means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

“Immediate owner” means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to, one or more of the following: Ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

“Inverted domestic corporation” means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

“Manufactured end product” means any end product in product and service codes (PSCs) 1000-9999, except--

(1) PSC 5510, Lumber and Related Basic Wood Materials;

(2) Product or Service Group (PSG) 87, Agricultural Supplies;

- (3) PSG 88, Live Animals;
- (4) PSG 89, Subsistence;
- (5) PSC 9410, Crude Grades of Plant Materials;
- (6) PSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) PSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) PSC 9610, Ores;
- (9) PSC 9620, Minerals, Natural and Synthetic; and
- (10) PSC 9630, Additive Metal Materials.

“Place of manufacture” means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

“Predecessor” means an entity that is replaced by a successor and includes any predecessors of the predecessor.

“Restricted business operations” means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate--

- (1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;
- (2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;
- (3) Consist of providing goods or services to marginalized populations of Sudan;
- (4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;
- (5) Consist of providing goods or services that are used only to promote health or education; or
- (6) Have been voluntarily suspended.

“Sensitive technology”--

- (1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically--
 - (i) To restrict the free flow of unbiased information in Iran; or
 - (ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and

(2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

“Service-disabled veteran-owned small business concern”--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

“Small business concern” means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

“Small disadvantaged business concern”, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13.CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

“Subsidiary” means an entity in which more than 50 percent of the entity is owned--

(1) Directly by a parent corporation; or

(2) Through another subsidiary of a parent corporation.

“Successor” means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term

“successor” does not include new offices/divisions of the same company or a company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

“Veteran-owned small business concern” means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

"Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127)", means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States.

(b) (1) Annual Representations and Certifications. Any changes provided by the Offeror in paragraph (b)(2) of this provision do not automatically change the representations and certifications in SAM.

(2) The offeror has completed the annual representations and certifications electronically in SAM accessed through <http://www.sam.gov>. After reviewing SAM information, the Offeror verifies by submission of this offer that the representations and certifications currently posted electronically at FAR 52.212-3, Offeror Representations and Certifications--Commercial Items, have been entered or updated in the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard(s) applicable to the NAICS code(s) referenced for this solicitation), at the time this offer is submitted and are incorporated in this offer by reference (see FAR 4.1201), except for paragraphs ____.

[Offeror to identify the applicable paragraphs at (c) through (v) of this provision that the offeror has completed for the purposes of this solicitation only, if any.

These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted electronically on SAM.]

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it (____) is, (____) is not a small business concern.

(2) Veteran-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents as part of its offer that it (____) is, (____) is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.) The offeror represents as part of its offer that it (____) is, (____) is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (____) is, (____) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (☐) is, (☐) is not a women-owned small business concern.

(6) WOSB concern eligible under the WOSB Program. [Complete only if the offeror represented itself as a women-owned small business concern in paragraph (c)(5) of this provision.] The offeror represents that--

(i) It [☐] is, [☐] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [☐] is, [☐] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(6)(i) of this provision is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [The offeror shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: _____.] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(7) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the offeror represented itself as a WOSB concern eligible under the WOSB Program in (c)(6) of this provision.] The offeror represents that--

(i) It [☐] is, [☐] is not an EDWOSB concern, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [☐] is, [☐] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(7)(i) of this provision is accurate for each EDWOSB concern participating in the joint venture. [The offeror shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: _____.] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

Note: Complete paragraphs (c)(8) and (c)(9) only if this solicitation is expected to exceed the simplified acquisition threshold.

(8) Women-owned business concern (other than small business concern). (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (☐) is, a women-owned business concern.

(9) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

(10) HUBZone small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It [☐] is, [☐] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR Part 126; and

(ii) It [☐] is, [☐] is not a HUBZone joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for each HUBZone small business concern

participating in the HUBZone joint venture. [The offeror shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: ____ .] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Certifications and representations required to implement provisions of Executive Order 11246--

(1) Previous Contracts and Compliance. The offeror represents that--

(i) It (____) has, (____) has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the and

(ii) It (____) has, (____) has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It (____) has developed and has on file, (____) has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It (____) has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$150,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(f) Buy American Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American --Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product." The terms "commercially available off-the-shelf (COTS) item," "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American--Supplies."

(2) Foreign End Products:

Line Item No.	Country of Origin
____	____
____	____
____	____

(List as necessary)

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Applies only if the clause at FAR 52.225-3, Buy American--Free Trade Agreements--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end product," "commercially available off-the-shelf (COTS) item," "component," "domestic end product," "end product," "foreign end product," "Free Trade Agreement country," "Free Trade Agreement country end product," "Israeli end product," and "United States" are defined in the clause of this solicitation entitled "Buy American--Free Trade Agreements--Israeli Trade Act."

(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American--Free Trade Agreements--Israeli Trade Act":

Free Trade Agreement Country End Products (Other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line Item No.	Country of Origin
—	—
—	—
—	—

[List as necessary]

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product."

Other Foreign End Products:

Line Item No.	Country of Origin
—	—
—	—
—	—

[List as necessary]

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.
 (2) *Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate, Alternate I (Jan 2004)*. If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American -Free Trade Agreements-Israeli Trade Act":

Canadian End Products:

Line Item No.

[List as necessary]

(3) *Buy American-Free Trade Agreements-Israeli Trade Act Certificate, Alternate II (Jan 2004)*. If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No.	Country of Origin
_____	_____
_____	_____
_____	_____

[List as necessary]

(4) *Buy American--Free Trade Agreements--Israeli Trade Act Certificate, Alternate III*. If Alternate III to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American --Free Trade Agreements--Israeli Trade Act":

Free Trade Agreement Country End Products (Other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line Item No.	Country of Origin
—	—
—	—
—	—

[List as necessary]

(5) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(5)(ii) of this provision, is a U.S.-made or designated country end product, as defined in the clause of this solicitation entitled "Trade Agreements".

(ii) The offeror shall list as other end products those end products that are not U.S.-made or designated country end products.

Other End Products:

Line Item No.	Country of Origin
—	—
—	—
—	—

[List as necessary]

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items covered by the WTO GPA, the Government will evaluate offers of U.S.-made or designated country end products without regard to the restrictions of the Buy American statute. The Government will consider for award only offers of U.S.-made or designated country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) *Certification Regarding Responsibility Matters (Executive Order 12689)*. (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) [____] Are, [____] are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(2) [____] Have, [____] have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery,

bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property; and

(3) [____] Are, [____] are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses enumerated in paragraph (h)(2) of this clause; and

(4) [____] Have, [____] have not, within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,500 for which the liability remains unsatisfied.

(i) Taxes are considered delinquent if both of the following criteria apply:

(A) *The tax liability is finally determined.* The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(B) *The taxpayer is delinquent in making payment.* A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(ii) Examples.

(A) The taxpayer has received a statutory notice of deficiency, under I.R.C. §6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(B) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. §6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals Contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(C) The taxpayer has entered into an installment agreement pursuant to I.R.C. §6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(D) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. §362 (the Bankruptcy Code).

(i) Certification Regarding Knowledge of Child Labor for *Listed End Products (Executive Order 13126)*. [*The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at [22.1503\(b\)](#).*]

(1) *Listed end products.*

Listed End Product	Listed Countries of Origin
—	—
—	—
—	—

(2) *Certification.* [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

[☐] (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

[☐] (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(j) *Place of manufacture.* (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly—

(1) (☐) In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) (☐) Outside the United States.

(j) *Place of manufacture.* (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly--

(1) (☐) In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) (☐) Outside the United States.

(k) *Certificates regarding exemptions from the application of the Service Contract Labor Standards.* (Certification by the offeror as to its compliance with respect to the contract also constitutes its certification as to compliance by its subcontractor if it subcontracts out the exempt services.)

[The contracting officer is to check a box to indicate if paragraph (k)(1) or (k)(2) applies.]

[☐] (1) Maintenance, calibration, or repair of certain equipment as described in FAR 22.1003-4(c)(1). The offeror (☐) does (☐) does not certify that—

(i) The items of equipment to be serviced under this contract are used regularly for other than Governmental purposes and are sold or traded by the offeror (or subcontractor in the case of an exempt subcontract) in substantial quantities to the general public in the course of normal business operations;

(ii) The services will be furnished at prices which are, or are based on, established catalog or market prices (see FAR 22.1003-4(c)(2)(ii)) for the maintenance, calibration, or repair of such equipment; and

(iii) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract will be the same as that used for these employees and equivalent employees servicing the same equipment of commercial customers.

[☐] (2) Certain services as described in FAR 22.1003-4(d)(1). The offeror (☐) does (☐) does not certify that—

(i) The services under the contract are offered and sold regularly to non-Governmental customers, and are provided by the offeror (or subcontractor in the case of an exempt subcontract) to the general public in substantial quantities in the course of normal business operations;

(ii) The contract services will be furnished at prices that are, or are based on, established catalog or market prices (see FAR 22.1003-4(d)(2)(iii));

(iii) Each service employee who will perform the services under the contract will spend only a small portion of his or her time (a monthly average of less than 20 percent of the available hours on an annualized basis, or less than 20 percent of available hours during the contract period if the contract period is less than a month) servicing the Government contract; and

(iv) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract is the same as that used for these employees and equivalent employees servicing commercial customers.

(3) If paragraph (k)(1) or (k)(2) of this clause applies—

(i) If the offeror does not certify to the conditions in paragraph (k)(1) or (k)(2) and the Contracting Officer did not attach a Service Contract Labor Standards wage determination to the solicitation, the offeror shall notify the Contracting Officer as soon as possible; and

(ii) The Contracting Officer may not make an award to the offeror if the offeror fails to execute the certification in paragraph (k)(1) or (k)(2) of this clause or to contact the Contracting Officer as required in paragraph (k)(3)(i) of this clause.

(l) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to SAM to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (l)(3) through (l)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

(☐) TIN: -----.

(☐) TIN has been applied for.

(☐) TIN is not required because:

(____) Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

(____) Offeror is an agency or instrumentality of a foreign government;

(____) Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

(____) Sole proprietorship;

(____) Partnership;

(____) Corporate entity (not tax-exempt);

(____) Corporate entity (tax-exempt);

(____) Government entity (Federal, State, or local);

(____) Foreign government;

(____) International organization per 26 CFR 1.6049-4;

(____) Other -----.

(5) Common parent.

(____) Offeror is not owned or controlled by a common parent;

(____) Name and TIN of common parent:

Name - ____ .

TIN - ____ .

(m) Restricted business operations in Sudan. By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(n) Prohibition on Contracting with Inverted Domestic Corporations—

(1) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(2) Representation. By submission of its offer, the offeror represents that--

(i) It is not an inverted domestic corporation; and

(ii) It is not a subsidiary of an inverted domestic corporation.

(o) Prohibition on contracting with entities engaging in certain activities or transactions relating to Iran.

(1) The offeror shall e-mail questions concerning sensitive technology to the Department of State at CISADA106@state.gov.

(2) *Representation and Certifications.* Unless a waiver is granted or an exception applies as provided in paragraph (o)(3) of this provision, by submission of its offer, the offeror—

(i) Represents, to the best of its knowledge and belief, that the offeror does not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran;

(ii) Certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act; and

(iii) Certifies that the offeror, and any person owned or controlled by the offeror, does not knowingly engage in any transaction that exceeds \$3,500 with Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates, the property and interests in property of which are blocked pursuant to the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.) (see OFAC's Specially Designated Nationals and Blocked Persons List at <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>).

(3) The representation and certification requirements of paragraph (o)(2) of this provision do not apply if—

(i) This solicitation includes a trade agreements certification (e.g., [52.212-3](#)(g) or a comparable agency provision); and

(ii) The offeror has certified that all the offered products to be supplied are designated country end products.

(p) *Ownership or Control of Offeror.* (Applies in all solicitations when there is a requirement to be registered in SAM or a requirement to have a unique entity identifier in the solicitation.

(1) The Offeror represents that it [____] has or [____] does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (2) and if applicable, paragraph (3) of this provision for each participant in the joint venture.

(2) If the Offeror indicates “has” in paragraph (p)(1) of this provision, enter the following information:

Immediate owner CAGE code: ____

Immediate owner legal name: ____

(Do not use a “doing business as” name)

Is the immediate owner owned or controlled by another entity:

[____] Yes or [____] No.

(3) If the Offeror indicates “yes” in paragraph (p)(2) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest level owner CAGE code: ____

Highest level owner legal name: ____

(Do not use a “doing business as” name)

(q) *Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law.*

(1) As required by section 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that—

(i) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless and agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or

(ii) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(2) The Offeror represents that--

(i) It is [____] is not [____] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(ii) It is [____] is not [____] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(r) Predecessor of Offeror. (Applies in all solicitations that include the provision at 52.204-16, Commercial and Government Entity Code Reporting.)

(1) The Offeror represents that it [____] is or [____] is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(2) If the Offeror has indicated ``is" in paragraph (r)(1) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: ____ (or mark ``Unknown").

Predecessor legal name: ____ .

(Do not use a ``doing business as" name).

(t) Public Disclosure of Greenhouse Gas Emissions and Reduction Goals. Applies in all solicitations that require offerors to register in SAM (12.301(d)(1)).

(1) This representation shall be completed if the Offeror received \$7.5 million or more in contract awards in the prior Federal fiscal year. The representation is optional if the Offeror received less than \$7.5 million in Federal contract awards in the prior Federal fiscal year.

(2) Representation. [Offeror to check applicable block(s) in paragraph (t)(2)(i) and (ii)]. (i) The Offeror (itself or through its immediate owner or highest-level owner) [____] does, [____] does not publicly disclose greenhouse gas emissions, i.e., makes available on a publicly accessible Web site the results of a greenhouse gas inventory,

performed in accordance with an accounting standard with publicly available and consistently applied criteria, such as the Greenhouse Gas Protocol Corporate Standard.

(ii) The Offeror (itself or through its immediate owner or highest-level owner) [____] does, [____] does not publicly disclose a quantitative greenhouse gas emissions reduction goal, i.e., make available on a publicly accessible Web site a target to reduce absolute emissions or emissions intensity by a specific quantity or percentage.

(iii) A publicly accessible Web site includes the Offeror's own Web site or a recognized, third-party greenhouse gas emissions reporting program.

(3) If the Offeror checked ``does" in paragraphs (t)(2)(i) or (t)(2)(ii) of this provision, respectively, the Offeror shall provide the publicly accessible Web site(s) where greenhouse gas emissions and/or reduction goals are reported:

— .

(u)(1) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions), Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with an entity that requires employees or subcontractors of such entity seeking to report waste, fraud, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(2) The prohibition in paragraph (u)(1) of this provision does not contravene requirements applicable to Standard Form 312 (Classified Information Nondisclosure Agreement), Form 4414 (Sensitive Compartmented Information Nondisclosure Agreement), or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(3) Representation. By submission of its offer, the Offeror represents that it will not require its employees or subcontractors to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting waste, fraud, or abuse related to the performance of a Government contract to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information (e.g., agency Office of the Inspector General).

(v) Covered Telecommunications Equipment or Services--Representation. Section 889(a)(1)(A) of Public Law 115-232.

(1) The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for ``covered telecommunications equipment or services".

(2) The Offeror represents that it [] does, [] does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

(a) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (a) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(b)(1) Notwithstanding the requirements of any other clauses of this contract, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (b) (1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (OCT 2015) (41 U.S.C. 3509).

(ii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).

(iii) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).

(iv) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2019) (Section 889(a)(1)(A) of Pub. L. 115-232).

(v) 52.219-8, Utilization of Small Business Concerns (OCT 2018) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(vi) 52.222-17, Nondisplacement of Qualified Workers (MAY 2014) (E.O. 13495). Flow down required in accordance with paragraph (l) of FAR clause 52.222-17.

(vii) 52.222-21, Prohibition of Segregated Facilities (APR 2015).

(viii) 52.222-26, Equal Opportunity (SEP 2016) (E.O. 11246).

(ix) 52.222-35, Equal Opportunity for Veterans (OCT 2015) (38 U.S.C. 4212).

- (x) 52.222-36, Equal Opportunity for Workers with Disabilities (JUL 2014) (29 U.S.C. 793).
- (xi) 52.222-37, Employment Reports on Veterans (FEB 2016) (38 U.S.C. 4212).
- (xii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.
- (xiii) 52.222-41, Service Contract Labor Standards (AUG 2018) (41 U.S.C. chapter 67).
- (xiv)(A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xv) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xvi) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xvii) 52.222-54, Employment Eligibility Verification (OCT 2015) (E.O. 12989).
- (xviii) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2015).
- (xix) 52.222-62 Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706).
- (xx)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).
- (B) Alternate I (JAN 2017) of 52.224-3.
- (xxi) 52.225-26, Contractors Performing Private Security Functions Outside the United States (OCT 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- (xxii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.
- (xxiii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.
- (2) While not required, the contractor MAY include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (End of clause)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(End of provision)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<https://acquisition.gov/browse/index/far>

(End of clause)

252.211-7003 ITEM UNIQUE IDENTIFICATION AND VALUATION (MAR 2016)

(a) Definitions. As used in this clause-

Automatic identification device means a device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.

Concatenated unique item identifier means--

(1) For items that are serialized within the enterprise identifier, the linking together of the unique identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or

(2) For items that are serialized within the original part, lot, or batch number, the linking together of the unique identifier data elements in order of the issuing agency code; enterprise identifier; original part, lot, or batch number; and serial number within the original part, lot, or batch number.

Data Matrix means a two-dimensional matrix symbology, which is made up of square or, in some cases, round modules arranged within a perimeter finder pattern and uses the Error Checking and Correction 200 (ECC200) specification found within International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 16022.

Data qualifier means a specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.

DoD recognized unique identification equivalent means a unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/pdi/uid/iuid_equivalents.html.

DoD item unique identification means a system of marking items delivered to DoD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier and a unique serial number. For items that are serialized within the part, lot, or batch number within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier; the original part, lot, or batch number; and the serial number.

Enterprise means the entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.

Enterprise identifier means a code that is uniquely assigned to an enterprise by an issuing agency.

Government's unit acquisition cost means--

- (1) For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery;
- (2) For cost-type or undefinitized line, subline, or exhibit line items, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery; and
- (3) For items produced under a time-and-materials contract, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery.

Issuing agency means an organization responsible for assigning a globally unique identifier to an enterprise, as indicated in the Register of Issuing Agency Codes for ISO/IEC 15459, located at http://www.aimglobal.org/?Reg_Authority15459.

Issuing agency code means a code that designates the registration (or controlling) authority for the enterprise identifier.

Item means a single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

Lot or batch number means an identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.

Machine-readable means an automatic identification technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.

Original part number means a combination of numbers or letters assigned by the enterprise at item creation to a class of items with the same form, fit, function, and interface.

Parent item means the item assembly, intermediate component, or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.

Serial number within the enterprise identifier means a combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

Serial number within the part, lot, or batch number means a combination of numbers or letters assigned by the enterprise to an item that provides for the differentiation of that item from any other like item within a part, lot, or batch number assignment.

Serialization within the enterprise identifier means each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.

Serialization within the part, lot, or batch number means each item of a particular part, lot, or batch number is assigned a unique serial number within that part, lot, or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot, or batch number within the enterprise identifier.

Type designation means a combination of letters and numerals assigned by the Government to a major end item, assembly or subassembly, as appropriate, to provide a convenient means of differentiating between items having the same basic name and to indicate modifications and changes thereto.

Unique item identifier means a set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated unique item identifier or a DoD recognized unique identification equivalent.

Unique item identifier type means a designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/pdi/uid/uii_types.html.

(b) The Contractor shall deliver all items under a contract line, subline, or exhibit line item.

(c) Unique item identifier. (1) The Contractor shall provide a unique item identifier for the following:

(i) Delivered items for which the Government's unit acquisition cost is \$5,000 or more, except for the following line items:

Contract line, subline, or exhibit line item No.	Item description
.....	

(ii) Items for which the Government's unit acquisition cost is less than \$5,000 that are identified in the Schedule or the following table:

Contract line, subline, or exhibit line item No.	Item description
.....	

(If items are identified in the Schedule, insert "See Schedule" in this table.)

(iii) Subassemblies, components, and parts embedded within delivered items, items with warranty requirements, DoD serially managed repairables and DoD serially managed nonrepairables as specified in Attachment Number ----.

(iv) Any item of special tooling or special test equipment as defined in FAR 2.101 that have been designated for preservation and storage for a Major Defense Acquisition Program as specified in Attachment Number ----.

(v) Any item not included in paragraphs (c)(1)(i), (ii), (iii), or

(iv) of this clause for which the contractor creates and marks a unique item identifier for traceability.

(2) The unique item identifier assignment and its component data element combination shall not be duplicated on any other item marked or registered in the DoD Item Unique Identification Registry by the contractor.

(3) The unique item identifier component data elements shall be marked on an item using two dimensional data matrix symbology that complies with ISO/IEC International Standard 16022, Information technology--International symbology specification--Data matrix; ECC200 data matrix specification.

(4) Data syntax and semantics of unique item identifiers. The Contractor shall ensure that--

(i) The data elements (except issuing agency code) of the unique item identifier are encoded within the data matrix symbol that is marked on the item using one of the following three types of data qualifiers, as determined by the Contractor:

(A) Application Identifiers (AIs) (Format Indicator 05 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(B) Data Identifiers (DIs) (Format Indicator 06 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(C) Text Element Identifiers (TEIs) (Format Indicator 12 of ISO/IEC International Standard 15434), in accordance with the Air Transport Association Common Support Data Dictionary; and

(ii) The encoded data elements of the unique item identifier conform to the transfer structure, syntax, and coding of messages and data formats specified for Format Indicators 05, 06, and 12 in ISO/IEC International Standard 15434, Information Technology-Transfer Syntax for High Capacity Automatic Data Capture Media.

(5) Unique item identifier.

(i) The Contractor shall--

(A) Determine whether to--

(1) Serialize within the enterprise identifier;

(2) Serialize within the part, lot, or batch number; or

(3) Use a DoD recognized unique identification equivalent (e.g. Vehicle Identification Number); and

(B) Place the data elements of the unique item identifier (enterprise identifier; serial number; DoD recognized unique identification equivalent; and for serialization within the part, lot, or batch number only: Original part, lot, or batch number) on items requiring marking by paragraph (c)(1) of this clause, based on the criteria provided in MIL-STD-130, Identification Marking of U.S. Military Property, latest version;

(C) Label shipments, storage containers and packages that contain uniquely identified items in accordance with the requirements of MIL-STD-129, Military Marking for Shipment and Storage, latest version; and

(D) Verify that the marks on items and labels on shipments, storage containers, and packages are machine readable and conform to the applicable standards. The contractor shall use an automatic identification technology device for this verification that has been programmed to the requirements of Appendix A, MIL-STD-130, latest version.

(ii) The issuing agency code--

(A) Shall not be placed on the item; and

(B) Shall be derived from the data qualifier for the enterprise identifier.

(d) For each item that requires item unique identification under paragraph (c)(1)(i), (ii), or (iv) of this clause or when item unique identification is provided under paragraph (c)(1)(v), in addition to the information provided as part of the Material Inspection and Receiving Report specified elsewhere in this contract, the Contractor shall report at the time of delivery, as part of the Material Inspection and Receiving Report, the following information:

- (1) Unique item identifier.
 - (2) Unique item identifier type.
 - (3) Issuing agency code (if concatenated unique item identifier is used).
 - (4) Enterprise identifier (if concatenated unique item identifier is used).
 - (5) Original part number (if there is serialization within the original part number).
 - (6) Lot or batch number (if there is serialization within the lot or batch number).
 - (7) Current part number (optional and only if not the same as the original part number).
 - (8) Current part number effective date (optional and only if current part number is used).
 - (9) Serial number (if concatenated unique item identifier is used).
 - (10) Government's unit acquisition cost.
 - (11) Unit of measure.
 - (12) Type designation of the item as specified in the contract schedule, if any.
 - (13) Whether the item is an item of Special Tooling or Special Test Equipment.
 - (14) Whether the item is covered by a warranty.
- (e) For embedded subassemblies, components, and parts that require DoD unique item identification under paragraph (c)(1)(iii) of this clause, the Contractor shall report as part of, or associated with, the Material Inspection and Receiving Report specified elsewhere in this contract, the following information:
- (1) Unique item identifier of the parent item under paragraph (c)(1) of this clause that contains the embedded subassembly, component, or part.
 - (2) Unique item identifier of the embedded subassembly, component, or part.
 - (3) Unique item identifier type.**
 - (4) Issuing agency code (if concatenated unique item identifier is used).**
 - (5) Enterprise identifier (if concatenated unique item identifier is used).**
 - (6) Original part number (if there is serialization within the original part number).**
 - (7) Lot or batch number (if there is serialization within the lot or batch number).**
 - (8) Current part number (optional and only if not the same as the original part number).**
 - (9) Current part number effective date (optional and only if current part number is used).**
 - (10) Serial number (if concatenated unique item identifier is used).**
 - (11) Description.

** Once per item.

(f) The Contractor shall submit the information required by paragraphs (d) and (e) of this clause as follows:

(1) End items shall be reported using the receiving report capability in Wide Area WorkFlow (WAWF) in accordance with the clause at 252.232-7003. If WAWF is not required by this contract, and the contractor is not using WAWF, follow the procedures at <http://dodprocurementtoolbox.com/site/uidregistry/>.

(2) Embedded items shall be reported by one of the following methods--

(i) Use of the embedded items capability in WAWF;

(ii) Direct data submission to the IUID Registry following the procedures and formats at <http://dodprocurementtoolbox.com/site/uidregistry/>; or

(iii) Via WAWF as a deliverable attachment for exhibit line item number (fill in) ----, Unique Item Identifier Report for Embedded Items, Contract Data Requirements List, DD Form 1423.

(g) Subcontracts. If the Contractor acquires by subcontract any items for which item unique identification is required in accordance with paragraph (c)(1) of this clause, the Contractor shall include this clause, including this paragraph (g), in the applicable subcontract(s), including subcontracts for commercial items.

(End of clause)

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (DEC 2018)

(a) Definitions. As used in this clause—

“Department of Defense Activity Address Code (DoDAAC)” is a six position code that uniquely identifies a unit, activity, or organization.

“Document type” means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

“Local processing office (LPO)” is the office responsible for payment certification when payment certification is done external to the entitlement system.

“Payment request” and “receiving report” are defined in the clause at 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(b) Electronic invoicing. The WAWF system provides the method to electronically process vendor payment requests and receiving reports, as authorized by Defense Federal Acquisition Regulation Supplement (DFARS) 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall—

(1) Have a designated electronic business point of contact in the System for Award Management at <https://www.sam.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor shall use the following information when submitting payment requests and receiving reports in WAWF for this contract or task or delivery order:

(1) Document type. The Contractor shall submit payment requests using the following document type(s):
COMBO

(i) For cost-type line items, including labor-hour or time-and-materials, submit a cost voucher.

(ii) For fixed price line items—

(A) That require shipment of a deliverable, submit the invoice and receiving report specified by the Contracting Officer.

(B) For services that do not require shipment of a deliverable, submit either the Invoice 2in1, which meets the requirements for the invoice and receiving report, or the applicable invoice and receiving report, as specified by the Contracting Officer.

(iii) For customary progress payments based on costs incurred, submit a progress payment request.

(iv) For performance based payments, submit a performance based payment request.

(v) For commercial item financing, submit a commercial item financing request.

(2) Fast Pay requests are only permitted when Federal Acquisition Regulation (FAR) 52.213-1 is included in the contract.

[Note: The Contractor may use a WAWF “combo” document type to create some combinations of invoice and receiving report in one step.]

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

<i>Field Name in WAWF</i>	<i>Data to be entered in WAWF</i>
Pay Official DoDAAC	M67443
Issue By DoDAAC	M67854
Admin DoDAAC**	M67854
Inspect By DoDAAC	M67854
Ship To Code	_____

Ship From Code	_____
Mark For Code	_____
Service Approver (DoDAAC)	M67854 PM10
Service Acceptor (DoDAAC)	M67854 PM10
Accept at Other DoDAAC	_____
LPO DoDAAC	_____
DCAA Auditor DoDAAC	_____
Other DoDAAC(s)	_____

(4) Payment request. The Contractor shall ensure a payment request includes documentation appropriate to the type of payment request in accordance with the payment clause, contract financing clause, or Federal Acquisition Regulation 52.216-7, Allowable Cost and Payment, as applicable.

(5) Receiving report. The Contractor shall ensure a receiving report meets the requirements of DFARS Appendix F.

(g) WAWF point of contact.

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

stephen.j.magee@usmc.mil

(2) Contact the WAWF helpdesk at 866-618-5988, if assistance is needed.

(End of clause)

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	MCB Quantico Existing Nodes and Equipment per Site	7	05-JUN-2020
Attachment 2	Performance Work Statement	80	05-JUN-2020
Attachment 3	CDRL A001	3	18-JUN-2020
Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	
Attachment 8	DID for CDRL A003	3	

Updated April 01, 2022

Antivirus Home Use Program (AV HUP)

The DoD Antivirus Software License Agreement from McAfee allows active DoD employees and authorized government contractors to utilize the antivirus software for personal device protection. Home use of the antivirus products will not only protect personal PCs, but will also potentially lessen the likelihood of malicious threats being introduced to the workplace and compromising DoD networks. DISA Home Use is now being offered to government employees and defense contractors with an approved .mil email address.

McAfee Internet Security

As a member of the DoD government and defense contractor community, you can now take advantage of a 1-year subscription to McAfee Internet Security for your PC or MAC at no cost. This subscription gives you proactive security for your home PC by preventing malicious attacks and keeping you safe while you surf, search, and download files online. McAfee's Internet Security service also continuously delivers the latest software, so your protection is never out-of-date. By installing McAfee Internet Security on your home system, you'll not only be protecting your PC from malicious threats, but you'll also help your organization strengthen its IT security against transferable viruses and spyware.

Note: Please be advised, DISA Home Use licensing for McAfee Internet Security is for personal/private purchased devices only. Do not install McAfee Internet Security on Government Furnished Equipment (GFE).

Instructions on how to download your copy of McAfee Internet Security:

ACTIVE SUBSCRIBERS: All existing users will be automatically extended and no further action is required.

1. Navigate to the website for your applicable platform, either PC or MAC, listed below. In addition, enter the associated "Company Code" in the appropriate field on the webpage:

Platform	URL	Company Code	Expiration
PC	www.mcafee.com/windows/dod	DIS41FBC06	20 MAR 2023
MAC	www.mcafee.com/mac/dod	DIS75F9D61	20 MAR 2023

2. Enter your DoD email address.
3. Click "Get Email".
4. You will receive an email from McAfee Subscriptions with your unique license key and download link.
NOTE - DO NOT download the software on your Government Furnished Equipment (GFE).

For Mac Users - If you see error "Serial Number is already used", clear your cache and log back in to get the new serial number.

AV HOME USE

- DISA Home Use Program instructions can be found here:
<https://patches.csd.disa.mil/Metadata.aspx?id=79775> (CAC Required)
- To check your subscription, log into your McAfee My Account page (use personal email) and click "Subscriptions": <https://home.mcafee.com/secure/protected/login.aspx?rfhs=1&culture=en-us>
- DoD does not provide any technical assistance to home users. Home users seeking technical support can contact McAfee directly on the support website:
<http://home.mcafee.com/Root/Support.aspx?page=Support>

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE 5/03/2021		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY COMMANDER MARCORSYSCOM 2200 LESTER STREET QUANTICO VA 22134		CODE M67854		7. ADMINISTERED BY (If other than item 6) COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134		CODE M67854	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC ANN SPEYER 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X D. OTHER (Specify type of modification and authority) FAR 52.212-4(c)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: sudbeckn211021 The purpose of this modification is to add CLIN 0005 and provide revised PWS.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print) Sara Uzel, LLC Manager				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MOHAMED H. ELMI TEL: 703-704-6555 EMAIL: mohamed.elmi@usmc.mil			
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 4/29/2021		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 03-May-2021	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by \$58,075.00 from \$24,029,195.24 to \$24,087,270.24.

SUPPLIES OR SERVICES AND PRICES

CLIN 0005 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1	Each	\$58,075.00	\$58,075.00
	Passive Optical Network (PON)				
	FFP				
	PON shall be performed in accordance with section 8.3.2.2 of the PWS				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: M9545021SU14795				
	PSC CD: 7B22				
NET AMT					\$58,075.00
ACRN AC					\$58,075.00
CIN: M9545021SU147950005					

ACCOUNTING AND APPROPRIATION

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$58,075.00 from \$24,029,195.24 to \$24,087,270.24.

CLIN 0005:

Funding on CLIN 0005 is initiated as follows:

ACRN: AC

CIN: M9545021SU147950005

Acctng Data: 17111094625 310 67854 067443 2D 462500

Increase: \$58,075.00

Total: \$58,075.00

Cost Code: 1SU14795106G

DELIVERIES AND PERFORMANCE

The following Delivery Schedule for CLIN 0005 has been added:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
21-MAY-2021	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CLIN 0005:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
Destination	Government	Destination	Government

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE 5/03/2021		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY COMMANDER MARCORSYSCOM 2200 LESTER STREET QUANTICO VA 22134		CODE M67854		7. ADMINISTERED BY (If other than item 6) COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134		CODE M67854	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC (b)(6) 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2886				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X D. OTHER (Specify type of modification and authority) FAR 52.212-4(c)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: sudbeckn211021 The purpose of this modification is to add CLIN 0005 and provide revised PWS.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print) (b)(6)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MOHAMED H. ELMI TEL: 703-784-6555 EMAIL: mohamed.elmi@usmc.mil			
(b)(6)		15C. DATE SIGNED 4/29/2021		16B. UNITED STATES OF AMERICA BY <i>Mohamed Elmi</i> (Signature of Contracting Officer)		16C. DATE SIGNED 03-May-2021	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by \$58,075.00 from \$24,029,195.24 to \$24,087,270.24.

SUPPLIES OR SERVICES AND PRICES

CLIN 0005 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1	Each	\$58,075.00	\$58,075.00
	(b)(4)				
	PON shall be performed in accordance with section 8.3.2.2 of the PWS				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: M9545021SU14795				
	PSC CD: 7B22				
NET AMT					\$58,075.00
ACRN AC					\$58,075.00
CIN: M9545021SU147950005					

ACCOUNTING AND APPROPRIATION

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$58,075.00 from \$24,029,195.24 to \$24,087,270.24.

CLIN 0005:

Funding on CLIN 0005 is initiated as follows:

ACRN: AC

CIN: M9545021SU147950005

Acctng Data: 17111094625 310 67854 067443 2D 462500

Increase: \$58,075.00

Total: \$58,075.00

Cost Code: 1SU14795106G

DELIVERIES AND PERFORMANCE

The following Delivery Schedule for CLIN 0005 has been added:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
21-MAY-2021	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CLIN 0005:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
Destination	Government	Destination	Government

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00002		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(If applicable)	
6. ISSUED BY CODE				7. ADMINISTERED BY (If other than item 6) CODE			
				See Item 6			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC ANN SPEYER 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.							
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.212-4(c)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: sudbeckn211369 The purpose of this modification is to provide revised payment schedule.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

The following have been modified:
PAYMENT SCHEDULE

PAYMENT SCHEDULE – MCB QUANTICO (CLINs 0001 - 0005)		
MILESTONE	PERCENT	AMOUNT
Completion of GPON scope	0.24%	\$58,075.00
Costs Expended Through February 2021	6.68%	\$1,607,993.56
Costs Expended From March 2021 Through May 2021	3.47%	\$835,208.92
Completion of Government Preliminary (65%) Engineering Design Review	14.80%	\$3,564,096.33
Completion of Government Final (95%) Engineering Design Review	34.82%	\$8,386,988.34
Completion of Power Systems Acceptance Testing and QC Inspection	10.00%	\$2,408,727.02
Completion of Telecommunications Systems Acceptance Testing	15.00%	\$3,613,090.54
Final Government Acceptance/Project Close-out	15.00%	\$3,613,090.54
TOTAL		\$24,087,270.24

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00002		3 EFFECTIVE DATE		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY CODE				7 ADMINISTERED BY (If other than item 6) CODE			
				See Item 6			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC (b)(6) 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.212-4(c)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: sudbeckn211369 The purpose of this modification is to provide revised payment schedule.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE


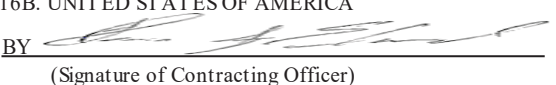
SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

The following have been modified:
PAYMENT SCHEDULE

PAYMENT SCHEDULE – MCB QUANTICO (CLINs 0001 - 0005)		
MILESTONE	PERCENT	AMOUNT
Completion of GPON scope	(b)(4)	
Costs Expended Through February 2021		
Costs Expended From March 2021 Through May 2021		
Completion of Government Preliminary (65%) Engineering Design Review		
Completion of Government Final (95%) Engineering Design Review		
Completion of Power Systems Acceptance Testing and QC Inspection		
Completion of Telecommunications Systems Acceptance Testing		
Final Government Acceptance/Project Close-out		
TOTAL		\$24,087,270.24

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 6	
2. AMENDMENT/MODIFICATION NO. P00003		3. EFFECTIVE DATE 17-Feb-2022		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(If applicable)	
6. ISSUED BY CODE COMMANDER MARCORSYSCOM CODE CT 2200 LESTER STREET QUANTICO VA 22134-6050		CODE M67854		7. ADMINISTERED BY (If other than item 6) CODE COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134		CODE M67854	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC ANN SPEYER 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.212-4(c) Changes							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u> 1 </u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: siskj22444 The purpose of this bilateral modification is to: 1) extend the delivery date for Contract Line Item Numbers (CLINs) 0001AA through 0001AB, 0002, 0003 and 0004AA through 0004AB from 28 February 2022 to 30 September 2022 and 2) To remove the term "Site Specific Requirements" from the Performance Specification document and replace it with the specific section of the Performance Specification that addresses the needed requirements, as applicable.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print) Kris R. Kurrus, LLC Manager				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) KEVIN J. EDMOND / CONTRACT SPECIALIST TEL: 703-784-1090 EMAIL: kevin.edmond2@usmc.mil			
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 02/17/2022		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 17-Feb-2022	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

EDMOND, Digitally signed
KEVIN J. 15 BY EDMOND, KEVIN
15803730 1.1.151803730

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

SUPPLIES OR SERVICES AND PRICES

CLIN 0005

The manufacturer organization below has been added:
TECHNOLOGY TRENDS GROUP, LLC
2121 N 15TH ST STE 300
ARLINGTON VA 22201-2686

DELIVERIES AND PERFORMANCE

The following Delivery Schedule item for SUBCLIN 0001AA has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0001AB has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for CLIN 0002 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule Item has been deleted from CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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The following Delivery Schedule item has been added to CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0004AA has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0004AB has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

TABLE OF CONTENTS

The Table of Contents has changed from:

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Nodes and Equipment per Site	36	31-AUG-2020
Attachment 2	Performance Specification	80	28-SEP-2020
Attachment 3	CDRL A001	3	18-JUN-2020
Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	
Attachment 8	DID for CDRL A003	3	

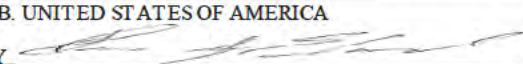
to:

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Nodes and Equipment per Site	36	31-AUG-2020
Attachment 2	Updated Performance Specification	86	07-FEB-2022
Attachment 3	CDRL A001	3	18-JUN-2020
Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	

Attachment 8 DID for CDRL A003 3

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 6	
2 AMENDMENT/MODIFICATION NO P00003		3 EFFECTIVE DATE 17-Feb-2022		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY COMMANDER MARCORSYSCOM CODE CT 2200 LESTER STREET QUANTICO VA 22134-6050		CODE M67854		7 ADMINISTERED BY (If other than item 6) COMMANDER MARCORSYSCOM ATTN: ANTHONY GENAO 2200 LESTER STREET QUANTICO VA 22134		CODE M67854	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) TECHNOLOGY TRENDS GROUP, LLC (b)(6) 2121 N 15TH ST STE 300 ARLINGTON VA 22201-2686				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. M6785420C4919			
				X 10B. DATED (SEE ITEM 13) 30-Sep-2020			
CODE 481E1		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.212-4(c) Changes							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: siskj22444 The purpose of this bilateral modification is to: 1) extend the delivery date for Contract Line Item Numbers (CLINs) 0001AA through 0001AB, 0002, 0003 and 0004AA through 0004AB from 28 February 2022 to 30 September 2022 and 2) To remove the term "Site Specific Requirements" from the Performance Specification document and replace it with the specific section of the Performance Specification that addresses the needed requirements, as applicable.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect							
15A. NAME AND TITLE OF SIGNER (Type or print) (b)(6)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) KEVIN J. EDMOND / CONTRACT SPECIALIST TEL: 703-784-1090 EMAIL: kevin.edmond2@usmc.mil			
15B. CONTRACTOR/OFFEROR (b)(6)		15C. DATE SIGNED 02/17/2022		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 17-Feb-2022	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 1449 - CONTINUATION SHEET

SUPPLIES OR SERVICES AND PRICES

CLIN 0005

The manufacturer organization below has been added:
TECHNOLOGY TRENDS GROUP, LLC
2121 N 15TH ST STE 300
ARLINGTON VA 22201-2686

DELIVERIES AND PERFORMANCE

The following Delivery Schedule item for SUBCLIN 0001AA has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0001AB has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for CLIN 0002 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule Item has been deleted from CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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The following Delivery Schedule item has been added to CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0004AA has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

The following Delivery Schedule item for SUBCLIN 0004AB has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
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28-FEB-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854
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To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
30-SEP-2022	1	MARINE CORPS SYSTEMS COMMAND STEPHEN MAGEE 2200 LESTER STREET QUANTICO VA 22134 703-784-4939 FOB: Destination	M67854

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Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	
Attachment 8	DID for CDRL A003	3	

to:

Exhibit/Attachment Table of Contents

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Attachment 4	CDRL A002	3	18-JUN-2020
Attachment 5	CDRL A003	3	18-JUN-2020
Attachment 6	DID for CDRL A001	3	
Attachment 7	DID for CDRL A002	1	

Attachment 8 DID for CDRL A003 3

(End of Summary of Changes)

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X
QUAN	121	52	50
GPON	0		
INHZ	4	2	6
PKWY	0	0	
SCPA	0	0	
BAND	0	0	0
BRRK	0	0	0
WNYZ	0	0	0
ANNZ	2	1	

Total	127	55	56
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C9300L-24P-4X-A	127
C9300L-48P-4X-A	55
C9300-48P-A	330
Total EUB Switches	512
C9300-48P-A With NM-8X	234
C9300-48P-A With No NM	96
STACK-T1-3M	24
CAB-SPWR-150CM	24

NOTE: Total switches proposed does not currently take into account the 25% growth requirement. This estimate is based on a 1 for 1 refresh and included necessary licensing to support SDA/Multi-tenancy) We will dial this number in following the VSS which will then shed light on current utilization with projected growth factored in

C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X
237	10	6	0
15			
3			
0			
0			
3			

258	10	6	0
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4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++=	Total Ports per Site
	0	18	950	19,944
49			0	0
		2	30	480
			12	720
			4	144
			0	0
		0	0	0
		0	0	0
		0	10	240

49	0	20	1006	21,528
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**These 8 port switches will convert to C9300L-24P-4X-A switches once we validate through

**These 4 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS

1 the VSS

Host Name	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X
QUAN-U03-AS-21	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-14	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-34	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-58	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-25	WS-C4506-E		5					
QUAN-U04-AS-46	WS-C3560V2-24TS-S	1						
QUAN-U05-AS-23	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-29	WS-C3560V2-48TS-E		1					
QUAN-U08-AS-60	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-61	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-62	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-64	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-65	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-66	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-67	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-68	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-69	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-41	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-42	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-43	WS-C4503-E			2				
QUAN-U08-AS-27	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-82	WS-C4503-E			2				
QUAN-U05-AS-20	WS-C3560V2-24TS-S	1						
QUAN-U05-AS-21	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-47	WS-C4503-E			2				
QUAN-U08-AS-74	WS-C4503-E			2				
QUAN-U08-AS-44	WS-C3560V2-48TS-E		1					
QUAN-U08-DR-01	WS-C6509-E							
QUAN-U08-DR-02	WS-C6509-E							
QUAN-U08-AS-04	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-03	WS-C4506-E				3			
QUAN-U08-AS-38	WS-C4506-E				3			
QUAN-U08-AS-39	WS-C4506-E				3			

QUAN-U08-AS-40	WS-C4506-E				3			
QUAN-U08-AS-06	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-21	WS-C4506-E				3			
QUAN-U08-AS-19	WS-C4506-E				3			
QUAN-U08-AS-20	WS-C4506-E				3			
QUAN-U08-AS-07	WS-C4506-E				3			
QUAN-U08-AS-08	WS-C4506-E				3			
QUAN-U08-AS-31	WS-C4506-E				3			
QUAN-U08-AS-32	WS-C4506-E							
QUAN-U04-AS-21	WS-C3560V2-48TS-E		1					
QUAN-U04-AS-20	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-22	WS-C3560V2-48TS-E		1					
QUAN-U08-AS-70	WS-C3560V2-48PS-S		1					
QUAN-U04-AS-09	WS-C3560V2-48TS-S		1					
QUAN-U04-AS-26	WS-C4506-E				3			
QUAN-U04-AS-24	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-01	WS-C4506-E				3			
QUAN-U08-AS-02	WS-C4506-E				3			
QUAN-U08-AS-10	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-11	WS-C4503-E			2				
QUAN-U08-AS-12	WS-C4506-E				3			
QUAN-U08-AS-46	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-17	WS-C4506-E				3			
QUAN-U03-AS-03	WS-C4506-E				3			
QUAN-U03-AS-02	WS-C4506-E				3			
QUAN-U03-DR-01	WS-C6506-E							
QUAN-U03-DR-02	WS-C6506-E							
QUAN-U03-AS-04	WS-C4506-E				3			
QUAN-U08-AS-35	WS-C3560V2-48TS-E		1					
QUAN-U08-AS-37	WS-C3560V2-48TS-E		1					
QUAN-U08-AS-36	WS-C4506-E				3			
QUAN-U08-AS-17	WS-C4506-E				3			
QUAN-U08-AS-18	WS-C4506-E				3			
QUAN-U08-AS-81	WS-C3560V2-24TS-S	1						

QUAN-U03-AS-32	WS-C4503-E			2			
QUAN-U03-AS-26	WS-C3750G-48PS-S		1				
QUAN-U03-AS-40	WS-C3750X-48P-S			2			
QUAN-U03-AS-43	WS-C3750X-48P-S				3		
QUAN-U03-AS-41	WS-C3750X-48P-S				3		
QUAN-U03-AS-42	WS-C3750X-48P-S				3		
QUAN-U04-AS-07	WS-C3560V2-48TS-E		1				
QUAN-U04-AS-08	WS-C3560V2-48TS-S		1				
QUAN-U04-AS-43	WS-C4503-E			2			
QUAN-U04-AS-27	WS-C3560V2-24TS-S	1					
QUAN-U04-AS-49	WS-C3560V2-24TS-S	1					
QUAN-U04-AS-12	WS-C3560V2-24TS-S	1					
QUAN-U04-AS-51	WS-C3560V2-24TS-S	1					
QUAN-U05-AS-11	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-15	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-01	WS-C4506-E				3		
QUAN-U04-AS-60	WS-C3560V2-24TS-S	1					
QUAN-U04-AS-61	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-44	WS-C3560V2-24TS-S	1					
QUAN-U08-AS-84	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-06	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-08	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-04	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-03	WS-C3560V2-24TS-S	1					
QUAN-U02-AS-22	WS-C3560V2-24TS-S	1					
QUAN-U02-DR-01	WS-C6506-E						
QUAN-U02-DR-02	WS-C6506-E						
QUAN-U02-AS-07	WS-C4506-E				3		
QUAN-U06-AS-07	WS-C4506-E			2			
QUAN-U06-AS-06	WS-C4503-E			2			
QUAN-U06-AS-05	WS-C4503-E			2			
QUAN-U06-AS-02	WS-C4506-E				3		
QUAN-U06-AS-08	WS-C4506-E				3		
QUAN-U06-AS-09	WS-C4506-E				3		

QUAN-U06-AS-10	WS-C4506-E				3			
QUAN-U06-AS-03	WS-C4503-E			2				
QUAN-U06-AS-28	WS-C6506-E			2				
QUAN-U06-AS-04	WS-C4503-E			2				
QUAN-U06-AS-12	WS-C4506-E				3			
QUAN-U06-DR-01	WS-C6506-E							
QUAN-U06-DR-02	WS-C6506-E							
QUAN-U06-AS-20	WS-C4506-E				3			
QUAN-U06-AS-22	WS-C4506-E				3			
QUAN-U06-AS-18	WS-C4506-E				3			
QUAN-U06-AS-13	WS-C4506-E				3			
QUAN-U06-AS-32	WS-C4503-E			2				
QUAN-U06-AS-26	WS-C3560V2-48TS-E		1					
QUAN-U06-AS-24	WS-C4503-E			2				
QUAN-U06-AS-16	WS-C4506-E				3			
QUAN-U06-AS-15	WS-C3560V2-48TS-E		1					
QUAN-U06-AS-14	WS-C4506-E				3			
QUAN-U06-AS-34	WS-C4503-E			2				
QUAN-U06-AS-31	WS-C4506-E				3			
QUAN-U06-AS-29	WS-C4506-E				3			
QUAN-U06-AS-30	WS-C4506-E				3			
QUAN-U06-AS-19	WS-C3560V2-24TS-S	1						
QUAN-U06-AS-21	WS-C3560V2-24TS-S	1						
QUAN-U06-AS-33	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-72	WS-C4506-E				3			
QUAN-U08-AS-71	WS-C4506-E				3			
QUAN-U08-AS-73	WS-C4506-E				3			
QUAN-U04-AS-10	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-64	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-41	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-58	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-04	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-75	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-10	WS-C4506-E				3			

QUAN-U07-AS-42	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-44	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-47	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-28	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-01	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-06	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-30	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-34	WS-C4506-E				3			
QUAN-U07-AS-11	WS-C4506-E				3			
QUAN-U07-AS-35	WS-C4506-E				3			
QUAN-U07-AS-07	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-09	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-50	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-49	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-48	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-26	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-43	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-03	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-36	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-51	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-79	WS-C3560V2-48TS-E		1					
QUAN-U07-AS-08	WS-C4506-E				3			
QUAN-U07-AS-38	WS-C3560V2-24TS-S	1						
QUAN-U07-DR-01	WS-C6506-E							
QUAN-U07-DR-02	WS-C6506-E							
DR								
DR								
QUAN-U07-AS-61	WS-C4506-E				3			
QUAN-U07-AS-62	WS-C3750X-24T-S	1						
QUAN-U07-AS-63	WS-C3750X-24T-S	1						
QUAN-U07-AS-71	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-68	WS-C3750X-24T-S	1						
QUAN-U07-AS-70	WS-C3560V2-24TS-S	1						
QUAN-U07-AS-69	WS-C3560V2-24TS-S	1						

QUAN-U07-AS-65	WS-C3750X-24T-S	1					
QUAN-U07-AS-66	WS-C3750X-24T-S	1					
QUAN-U07-AS-67	WS-C3750X-24T-S	1					
QUAN-U07-AS-19	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-15	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-52	WS-C3560G-24TS-S	1					
QUAN-U07-AS-18	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-25	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-29	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-22	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-21	WS-C4506-E				3		
QUAN-U07-AS-24	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-20	WS-C3560V2-48TS-S		1				
QUAN-U07-AS-39	WS-C3560V2-48TS-E		1				
QUAN-U07-AS-45	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-46	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-23	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-32	WS-C3560V2-48TS-E		1				
QUAN-U07-AS-12	WS-C3560V2-48TS-S		1				
QUAN-U07-AS-40	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-17	WS-C4506-E				3		
QUAN-U07-AS-14	WS-C6506-E				3		
DR							
DR							
QUAN-U07-AS-27	WS-C3560V2-48TS-E		1				
QUAN-U07-AS-13	WS-C3560V2-24TS-S	1					
QUAN-U07-AS-56	WS-C4506-E				3		
QUAN-U07-AS-57	WS-C4506-E				3		
QUAN-U07-AS-55	WS-C3560V2-48TS-S		1				
QUAN-U09-AS-05	WS-C3850-48U					6	
QUAN-U07-AS-54	WS-C3560V2-24TS-S	De-Scope 1					
QUAN-U09-AS-01	WS-C3850-48U						De-Scope 7
QUAN-U09-AS-06	WS-C3850-48U		De-Scope 1				
QUAN-U09-AS-03	WS-C3850-48U						De-Scope 7

QUAN-U09-AS-02	WS-C3850-48U						De-Scope 6	
QUAN-U05-AS-02	WS-C3560V2-24TS-S	1						
QUAN-U05-AS-25	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-30	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-31	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-55	WS-C3560V2-48TS-S		1					
QUAN-U04-AS-52	WS-C3560V2-48TS-S		1					
QUAN-U08-AS-30	WS-C4506-E				3			
QUAN-U03-AS-13	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-24	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-22	WS-C3560V2-48TS-S		1					
QUAN-U02-AS-11	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-44	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-36	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-37	WS-C4503-E			2				
QUAN-U03-AS-11	WS-C4506-E				3			
QUAN-U03-AS-08	WS-C3560-48TS-S		1					
QUAN-U03-AS-09	WS-C3560-48TS-S		1					
QUAN-U03-AS-18	WS-C3560-48TS-S		1					
QUAN-U03-AS-10	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-06	WS-C3750G-24TS-E1U	1						
QUAN-U03-AS-35	WS-C3560V2-48TS-S		1					
QUAN-U03-AS-39	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-25	WS-C3560V2-48TS-E		1					
QUAN-U02-AS-27	WS-C4503-E			2				
QUAN-U06-AS-11	WS-C4506-E				3			
QUAN-U04-AS-35	WS-C4506-E				3			
QUAN-U04-AS-19	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-48	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-04	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-20	WS-C4503-E			2				
QUAN-U03-AS-15	WS-C3560V2-48TS-S		1					
QUAN-U04-AS-45	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-03	WS-C4503-E			2				

QUAN-U04-AS-14	WS-C3560G-24TS-S	1						
QUAN-U04-AS-44	WS-C4506-E				3			
QUAN-U04-AS-53	WS-C4503-E			2				
QUAN-U04-AS-16	WS-C3560G-24PS-E	1						
QUAN-U04-AS-17	WS-C3560G-24PS-E	1						
QUAN-U04-AS-15	WS-C3560G-24TS-E	1						
QUAN-U04-AS-01	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-11	WS-C3560V2-48TS-S		1					
QUAN-U04-AS-02	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-07	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-05	WS-C4506-E				3			
QUAN-U02-AS-02	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-09	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-16	WS-C3560V2-48TS-S		1					
QUAN-U04-AS-50	WS-C4506-E				3			
QUAN-U02-AS-16	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-35	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-17	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-39	WS-C4506-E				3			
QUAN-U04-AS-38	WS-C4506-E				3			
QUAN-U04-AS-54	WS-C4503-E			2				
QUAN-U04-AS-32	WS-C4506-E				3			
QUAN-U04-AS-28	WS-C3560V2-24TS-S	1						
QUAN-U04-AS-13	WS-C4506-E				3			
QUAN-U99-AS-24	WS-C3560G-24TS-E	1						
QUAN-U99-DS-01	WS-C6506-E							
QUAN-U99-DS-02	WS-C6506-E							
QUAN-U03-AS-01	WS-C4506-E				3			
QUAN-U99-AS-01	WS-C6506-E				3			
QUAN-U99-AS-05	WS-C6506-E				3			
QUAN-U99-AS-06	WS-C6506-E				3			
QUAN-U99-AS-07	WS-C6509-E					5		
QUAN-U99-AS-08	WS-C6509-E					5		
QUAN-U99-AS-02	WS-C6506-E				3			

QUAN-U04-AS-05	WS-C4506-E				3			
QUAN-U04-AS-06	WS-C4503-E			2				
QUAN-U99-AS-22	WS-C6506-E				3			
QUAN-U99-AS-23	WS-C6506-E				3			
QUAN-U99-AS-03	WS-C6506-E				3			
QUAN-U99-AS-04	WS-C6506-E				3			
QUAN-U04-DR-01	WS-C6506-E							
QUAN-U04-DR-02	WS-C6506-E							
QUAN-U09-AS-07	WS-C3850-48U				3			
QUAN-U05-AS-18	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-19	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-06	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-03	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-07	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-10	WS-C4503-E			De-Scope 2				
QUAN-U05-AS-04	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-05	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-01	WS-C4503-E			De-Scope 2				
QUAN-U05-AS-08	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-09	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-12	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-13	WS-C4506-E				De-Scope 3			
QUAN-U05-DR-01	WS-C6506-E							
QUAN-U05-DR-02	WS-C6506-E							
QUAN-U05-AS-14	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-15	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-22	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-17	WS-C4506-E				De-Scope 3			
QUAN-U05-AS-16	WS-C4506-E				De-Scope 3			
QUAN-U08-AS-90	WS-C3560V2-24TS-S	1						
QUAN-U05-AS-28	WS-C3560V2-24TS-S	1						
QUAN-U05-AS-29	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-14	WS-C4506-E				3			
QUAN-U02-AS-13	WS-C4506-E				3			

QUAN-U08-AS-16	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-54	WS-C4503-E			2				
QUAN-U08-AS-52	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-27	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-28	WS-C3560V2-24TS-S	1						
QUAN-U02-AS-19	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-28	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-30	WS-C3560V2-48TS-E		1					
QUAN-U03-AS-23	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-22	WS-C3560V2-24TS-S	1						
QUAN-U03-AS-12	WS-C3560V2-48TS-S		1					
QUAN-U07-AS-16	WS-C3560V2-24TS-S	1						
QUAN-U09-GSAS-01	WS-C3850-48U				3			
QUAN-U08-AS-05	WS-C3560V2-24TS-S	1						
QUAN-U08-AS-55	WS-C3560V2-24TS-S	1						
DR								
DR								
	Total	121	52	50	237	10	6	0

** Row #374 location needs to be identified prior to placing in-scope for this effort. For now, we'll identify as a "maybe" / Orange until post VSS.

QUAN-L00-AS-01	WS-C3750G-24TS-E1U							
QUAN-U99-AS-25	WS-C3750G-24TS-E1U							
QUAN-L00-CB-01	WS-C3750G-48TS-E							
QUAN-U09-GSAS-02	WS-C3850-48U							
QUAN-L00-AS-02	ex4200-48t							
QUAN-L00-AS-03	ex8208							
QUAN-U99-AS-11a	Nexus 3132QV							
QUAN-U99-AS-11b	Nexus 3132QV							
QUAN-U99-DR-01	Nexus9000 C9332PQ							
QUAN-U99-DR-02	Nexus9000 C9332PQ							
QUAN-L00-OS-01	WS-C3750G-48TS-E							

QUAN-UDZ-IS-01	WS-C3850-48XS							
QUAN-UDZ-OS-01	WS-C3850-48XS							
QUAN-UB1-OS-04	WS-C4500X-32							
QUAN-U08-DH-01	3745							
QUAN-U08-DH-02	3745							
QUAN-U08-CO-01	CISCO2921/K9							
QUAN-U08-DP-03	888							
QUAN-U03-AS-19	Nexus5548							
QUAN-U03-AS-24	Nexus5548							
QUAN-U08-DP-12	888							
QUAN-U07-DP-11	888							
QUAN-U07-DP-13	888							
QUAN-U07-DH-02	3745							
QUAN-U07-DH-01	3745							
QUAN-U07-DP-01	888							
QUAN-U07-AS-60	WS-C2960-8TC-S							
QUAN-U07-DP-03	CISCO2911/K9							
QUAN-U07-ES-03	SM-ES2-24							
QUAN-U07-DP-15	888							
QUAN-U07-DP-02	CISCO2911/K9							
QUAN-U07-ES-02	SM-ES2-24							
QUAN-U09-AS-04	CISCO2911/K9							
QUAN-U08-AS-13	WS-C2960-8TC-S							
QUAN-U05-AS-27	WS-C2960-8TC-S							
QUAN-U00-IS-04	WS-C3560-24TS-S							
QUAN-U99-SS-01	WS-C4503-E							
QUAN-UB1-CB-01	WS-C4948							
QUAN-UB1-IS-02	WS-C4948							
QUAN-U00-IR-01	Nexus9000 C9508 (8 Slot)							
QUAN-U00-IR-02	Nexus9000 C9508 (8 Slot)							
QUAN-UB1-OS-03	WS-C3560-24TS-S							
QUAN-UB1-OS-05	WS-C4948							
QUAN-U00-IS-03	WS-C4500X-32							
QUAN-UB1-IS-01	WS-C4503							

QUAN-UB1-OS-02	WS-C4503							
QUAN-UB1-OS-01	WS-C6506-E							
QUAN-UB1-EO-01	WS-C6506-E							
QUAN-U01-BI-01	ASR1002-X							
QUAN-UB1-OR-01	CISCO3945-CHASSIS							
QUAN-U09-AS-08	WS-C3850-12XS							
QUAN-L00-IR-01	ASR1004							
QUAN-L00-IS-01	WS-C3750G-48TS-E							

8 Port	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number
		4	Bldg_0711_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3HJ
		4	Bldg_0716_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X379
		4	Bldg_1001_Floor_0001_Room_0001_Rack_0001_	FDO1719Y0XA
		4	Bldg_1002_Floor_0001_Room_0001_Rack_0001_	FDO1437X020
		4	Bldg_1019_Floor_0001_Rm_Telco_Rack_0001_	SPE1730008V
		4	Bldg_1304_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X376
		4	Bldg_13201_Floor_0001_Room_Closet_Rack_0001_	FDO1437X039
		4	Bldg_15_Floor_0001_Room_0001_Rack_0001_	FDO1529X1WX
		4	Bldg_15000_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NH
		4	Bldg_15001_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NU
		4	Bldg_15002_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RP
		4	Bldg_15004_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y139
		4	Bldg_15005_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y12X
		4	Bldg_15006_Floor_Basement_Room_Telco1_Rack_0001	FDO1645Y13J
		4	Bldg_15007_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y13L
		4	Bldg_15008_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RW
		4	Bldg_15009_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y138
		4	Bldg_17_Floor_0001_Room_0001_Rack_0001_	FDO1437V146
		2	Bldg_17_Floor_0001_Room_0002_Rack_0001_	FDO1437V2AQ
		2	Bldg_17_Floor_2_Room_219_Rack_0001_	FXS1735Q2AB
		4	Bldg_1775_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X19P
		2	Bldg_1775_Floor_0001_Room_telco1_Rack_0001_	SPE1735003S
		2	bldg_1775_Floor_1_Room_0001_Rack_0001	FDO1437X02V
		2	bldg_1775_Floor_1_Room_0001_Rack_0001	FDO1633X19U
		4	Bldg_1776_Floor_0001_Room_Telco1_Rack_0001	SPE171500KE
		4	Bldg_1998_Floor_0001_Room_Telco_1_Rack_0001_	SPE134300YL
		4	Bldg_1999_Floor_0001_Room_0001_Rack_0001_	FDO1529X1X5
	1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC1643006Z
	1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC16430072
		4	bldg_2004_Floor_1_Room_0117_Rack_0001	FDO1633X19A
		2	Bldg_2004_Floor_1_Room_TELCO1_Rack_1_	FXS1732Q3ZC
		4	Bldg_2006_Floor_0001_Room_108_Rack_0001_	FXS1732Q3WE
		2	Bldg_2006_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3ZU

		2	Bldg_2006_Floor_3_Room_308_Rack_1_	FXS1731Q4AY
		2	Bldg_2006_Floor_Basement_Room_B014_Rack_1_	FDO1633X1BR
		4	Bldg_2008_Floor_0001_Room_Telco1_Rack_0003_	FXS1732Q3CN
		2	Bldg_2008_Floor_0003_Room_0003_Rack_0001_	SPE173000A4
		2	Bldg_2008_Floor_2_Room_231_Rack_2_	SPE173000C9
		4	Bldg_2009_Floor_0002_Room_0002_Rack_0001_	FXS1732Q406
		2	Bldg_2009_Floor_3_Room_332_Rack_1_	SPE172801YN
		4	Bldg_2010_Floor_0002_Rm_211_Rack_0001_	SPE17300087
		4	Bldg_2011_Floor_0001_Rm_116_Rack_0002_	SPE17300096
		4	Bldg_2013_Floor_0001_Room_0001_Rack_0001_	FDO1529X1XV
		2	Bldg_2013_Floor_1_Room_BreakRm_Rack_1_	FDO1437V110
		4	Bldg_2014_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1XG
		4	Bldg_2015_Floor_0001_Rm_Telco1_Rack_0001_	FDO1644Y2C6
		4	Bldg_2032_Floor_0001_Room_000_Rack_001	FDO1723Y2D5
		2	Bldg_2032_Floor_0001_Room_Telco1_Rack_0001_	SPE173000BS
		2	Bldg_2032_Floor_0001_Room_Telco2_Rack_0001_	FDO1633X1A2
		4	Bldg_2034_Floor_0001_Room_Telco1_Rack_0001_	SPE1728020L
		2	Bldg_2034_Floor_1_Rm_TelcoSouth_Rack_3	SPE17280208
		4	Bldg_2043_Floor_1_Rm_124_Rack_1_	FDO1636Y15K
		2	Bldg_2043_Floor_1_Room_EMB_Rack_1_	SPE134300ZY
		2	Bldg_2043_Floor_1_Room_Telco_1_Rack_0002_	FXS1731Q4AR
		4	Bldg_2045_Floor_0001_Room_0001_Rack_0001_	FDO1437V125
		4	Bldg_2048_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3W0
		4	Bldg_2076_Floor_0001_Room_0001_Rack_0001_	FXS1732Q411
		2	Bldg_2076_Floor_0001_Room_0006_Rack_0001_	FXS1732Q410
	1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PK
	1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PJ
		2	Bldg_2076_Floor_0002_Room_0002_Rack_0001_	FXS1732Q3ZG
		4	Bldg_2077_Floor_0002_Room_0002_Rack_0001_	FDO1529X1X4
		2	Bldg_2077_Floor_0002_Room_0210_Rack_0001_	FDO1529X263
		2	Bldg_2077_Floor_Basement_Rm_B28_Rack_0001_	FXS1732Q3WC
		4	Bldg_2079_Floor_1_Rm_138_Rack_1_	FXS1732Q412
		2	Bldg_2079_Floor_2_Rm_226_Rack_1_	SPE17280245
		4	bldg_2080_Floor_1_Room_0001_Rack_0001	FDO1437V291

		4	Bldg_2082_Floor_0001_Room_115_Rack_0001_	SPE171500KJ
		2	Bldg_2082_Floor_0001_Room_B12_Rack_0001_	FOC1109Y2F1
		4	Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1719H3KR,FDO1713Z0RP
		2	Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1720R1HM,FDO1608K119
		2	Bldg_2084_Floor_0002_Room_Telco2_Rack_0001_	FDO1720R1WE,FDO1719H3L1
		2	Bldg_2084_Floor_0003_Room_Telco3_Rack_0001_	FDO1719H3KB,FDO1722P0HQ
		4	Bldg_2100_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WP
		2	Bldg_2100_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X190
		4	Bldg_2105_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L0
		2	Bldg_2105_Floor_0002_Room_Telco2_Rack_0001_	FDO1437V10K
		4	Bldg_2105T_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y19S
		4	Bldg_2106_Floor_0001_Room_0164_Rack_1_	FDO1438X004
		4	Bldg_2110_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y191
		4	Bldg_2117_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X36H
		4	Bldg_2118_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V11J
		4	Bldg_2121_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3W6
		4	Bldg_2122_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y13Y
		4	Bldg_2123_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y121
		4	Bldg_2124_Floor_0001_Room_Teco1_Rack_0001_	FDO1438X05W
		4	bldg_2132_Floor_1_Room_0119_Rack_0001	FDO1437X3DS
		4	Bldg_2177_Floor_1_Room_1_Rack_Telco1_	FDO1645Y13Z
		4	Bldg_2179_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X01L
		4	Bldg_2187_Floor_0001_Room_Teco2_Rack_0001_	FDO1437X01Y
		2	Bldg_2187_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X3LL
		4	Bldg_2189_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y14Q
	1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0001_	SAL1633KRTA
	1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0004_	SAL17236L1N
		4	Bldg_2189N_Floor_0001_Room_Telco1_Rack_0001_	SPE173000DQ
		4	Bldg_2200_Floor_0001_Room_153A_Rack_0001_	FXS1732Q408
		2	Bldg_2200_Floor_0001_Room_B-wing_Rack_0001_	SPE1343012Q
		2	Bldg_2200_Floor_0001_Room_C-wing_Rack_0001_	SPE134300VS
		2	Bldg_2200_Floor_0001_Room_Telco1_Rack_0003_	FOX1338GZZK
		2	Bldg_2200_Floor_0002_Room_207_Rack_0001_	FOX1338GWXX
		2	Bldg_2200_Floor_0002_Room_229_Rack_0001_	FXS1732Q3Z1

		2	Bldg_2200_Floor_0002_Room_252_Rack_0001_	FOX1338GZZL
		2	Bldg_2200_Floor_000B_Room_B20B_Rack_0002_	SPE1343012R
		2	Bldg_2200_Floor_000B_Room_B65_Rack_0001_	SAL172264NQ
		2	Bldg_2200_Floor_Basement_Room_A-wing_Rack_0001_	SPE1340004Z
		4	Bldg_2201A_Floor_0001_Room_110_Rack_0001_	FXS1732Q3CV
		2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172369MW
		2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172264PD
		4	Bldg_2202_Floor_0001_Room_105_Rack_0001_	FXS1732Q3W5
		2	Bldg_2202_Floor_0002_Room_0210_Rack_0001_	SPE173000BF
		2	Bldg_2202_Floor_000B_Room_0001_Rack_0001_	FXS1732Q3VQ
		4	Bldg_2203_Floor_1_Room_Telco 1_Rack_1_	FOX1335GRHE
		4	Bldg_2203A_Floor_0001_Room_0001_Rack_0001_	SPE171500KF
		4	Bldg_2204_Floor_0001_Room_114_Rack_0001_	FDO1529X1WQ
		2	Bldg_2204_Floor_Basement_Room_B17_Rack_0001_	FXS1735Q2AF
		4	Bldg_2207_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3WH
		2	Bldg_2207_Floor_0002_Room_0002_Rack_0002_	FDO1529X1XU
		2	Bldg_2207_Floor_000B_Room_B05_Rack_0001_	FOX1338GZZE
		4	Bldg_2208_Floor_1_Room_Telco1_Rack_1_	FXS1733Q0HZ
		4	Bldg_2209T_Floor_1_Room_Telco1_Rack_1_	SPE1728024H
		4	Bldg_2210_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024Z
		2	Bldg_2210_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3WW
		4	Bldg_2247_Floor_0001_Room_0001_Rack_0001_	FDO1438X02R
		4	Bldg_2248_Floor_0001_Room_0001_Rack_0001_	FDO1437X02Q
		4	Bldg_2249_Floor_0001_Room_0001_Rack_0001_	FDO1437V12W
		4	Bldg_2300_Floor_1_Room_Telco1_Rack_1_	FXS1732Q3XD
		4	Bldg_2300A_Floor_1_Room_Telco1_Rack_1_	FXS1732Q0DN
		4	Bldg_2300B_Floor_1_Room_Telco1_Rack_1_	SPE173000C6
		4	Bldg_2321_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RK
		4	Bldg_23402_Floor_1_Room_1_Rack_1_	FDO1645Y13A
		4	Bldg_24004_Floor_1_Room_Telco_Rack_1_	FDO1438X01H
		4	Bldg_24005_Floor_1_Room_0001_Rack_1_	FDO1437X3GR
		4	Bldg_24006_Floor_0001_Room_telco10_Rack_0001_	FDO1437V0YJ
		4	Bldg_24008_Floor_1_Room_0001_Rack_1_	FDO1437X3GZ
		4	Bldg_24009_Floor_0001_Room_0152_Rack_0001_	FXS1732Q3WY

		4	Bldg_24015_Floor_1_Room_Telco1_Rack_1_	FDO1633X18D
		4	Bldg_24017_Floor_0001_Room_telco1_Rack_0001_	FDO1633X1B0
		4	Bldg_24018_Floor_0001_Room_0001_Rack_0001_	FDO1436X3LR
		4	Bldg_24114_Floor_0001_Room_0000_Rack_0000_	FDO1704Y2SS
		4	Bldg_24142_Floor_0001_Room_Office_Rack_0001_	FDO1437V12H
		4	Bldg_24144_Floor_0001_Room_0001_Rack_0001_	FDO1436X22U
		4	Bldg_24157_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AK
		4	Bldg_24164_Floor_0001_Room_0169_Rack_0001_	FXS1646Q40C
		2	Bldg_24164_Floor_0001_Room_117_Rack_0001_	SPE17300085
		2	Bldg_24164_Floor_0002_Room_0229_Rack_0001_	FXS1647Q04E
		4	Bldg_24180_Floor_0001_Room_0001_Rack_0001_	FDO1436X3KV
		4	Bldg_24191_Floor_0001_Room_0001_Rack_0001_	FDO1438X018
		4	Bldg_24192_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X1B3
		2	Bldg_24192_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19L
		4	Bldg_24193_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19T
		4	Bldg_24193A_Floor_1_Room_Telco 1_Rack_1_	FDO1645Y19A
		4	Bldg_24194_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X19F
		4	Bldg_24195_Floor_0001_Room_0001_Rack_0001_	FDO1645Y199
		4	Bldg_24196_Floor_1_Room_Telco1_Rack_1_	FDO1437V28G
		4	Bldg_24197_Floor_0001_Room_telco1_Rack_0001_	FDO1437X3DK
		4	bldg_24200_Floor_1_Room_0149_Rack_0001	FDO1529X1X6
		4	Bldg_24202_Floor_1_Room_143_Rack_1_	FXS1731Q4AV
		4	Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y12V
	1		Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL172369MY
	1		Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL1718474L
	1		Bldg_26100	
	1		Bldg_26100	
		4	Bldg_26100_Floor_0001_Room_Telco1_Rack_0001_	SPE173000D1
		2	Bldg_26100_Floor_1_Room_RWC1_Rack_1_	FDO1746Z0JL
		2	Bldg_26100_Floor_1_Room_RWC2_Rack_1_	FDO1745P23K
		4	Bldg_26101_Floor_0001_Room_0000_Rack_0001	FDO1710Y0N2
		4	Bldg_26133_Floor_1_Room_Telco1_Rack_1_	FDO1746H070
		4	Bldg_26143_Floor_1_Room_Telco1_Rack_1_	FDO1437X3DV
		4	Bldg_26144_Floor_1_Room_Telco1_Rack_1_	FDO1438X05A

		4	Bldg_2649_Floor_1_Room_1_Rack_1	FDO1746H0ME
		2	Bldg_2649_Floor_1_Room_1_Rack_1	FDO1746P0Y9
		4	Bldg_2650_Floor_1_Room_1_Rack_1	FDO1746H0MK
		4	Bldg_27001_Floor_0001_Room_0001_Rack_0001_	FDO1437V0W4
		4	Bldg_27007_Floor_0001_Room_0001_Rack_0001_	FDO1438X03L
		4	Bldg_27028T_Floor_0001_Room_Telco1_Rack_01_	FOC1623V0TW
		4	Bldg_27046_Floor_0001_Room_0001_Rack_0001_	FDO1437V0ZB
		4	Bldg_27067_Floor_0001_Room_0001_Rack_0001_	FDO1438X02T
		4	Bldg_27200_Floor_1_Room_Telco1_Rack_1_	FDO1437X380
		4	Bldg_27210_Floor_0001_Room_604_Rack_0001_	FDO1437V0YM
		4	Bldg_27211_Floor_0001_Room_S4_Rack_0001_	SPE173000B9
		4	Bldg_27231_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X015
		4	Bldg_27241_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X185
		4	Bldg_27250_Floor_0001_Rm_Telco1_Rack_0001_	FDO1529X1XH
		2	Bldg_27250_Floor_0001_Room_telco1_Rack_0001_	FDO1437V22T
		4	Bldg_27251_Floor_0001_Room_0001_Rack_0001_	FDO1437V0X3
		4	Bldg_27270_Floor_0001_Room_0001_Rack_0001_	FDO1437V272
		4	Bldg_27275_Floor_2_Room_206_Rack_2_	FDO1528X0CG
		4	Bldg_27277_Floor_2_Room_206_Rack_2_	FDO1633X1AD
		4	Bldg_27279_Floor_0001_Room_telco10_Rack_0001_	FDO1438X036
		4	Bldg_27281_Floor_0001_Rm_Telco1_Rack_0001_	FXS1732Q3EE
		4	Bldg_27282_Floor_0001_Room_0001_Rack_0001_	SAL172369MS
	1		Bldg_27282	
	1		Bldg_27282	
		4	Bldg_27290TX_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X1P5
		4	Bldg_27400_Floor_0001_Room_0001_Rack_0001_	FDO1437X356
		4	Bldg_27402_Floor_0001_Room_0001_Rack_0008	FOX1614GXY4
		2	Bldg_27402_Floor_0001_Room_0001_Rack_0008_	SPE154901XJ
		2	Bldg_27402_Floor_0001_Room_Telco1_Rack_0001	FDO1633X1AY
		4	BLDG_2741_FLR_02_RM_209_RN2_U30	FCW1951D0BJ,FCW1951C0EY,
		De-Scope 4	Bldg_27410_Floor_0001_Room_135_Rack_0001_	FDO1437V12M
		De-Scope 2	BLDG_27410_FLR_01_RM_129_RN2_U12	FOC1951X0S4,FOC1951U0R1,F
		De-Scope 2	BLDG_27410_FLR_01_RM_135_R1_U39	FCW1951D10R
		De-Scope 2	BLDG_27410_FLR_01_RM_141_RN3_U26B	FOC1938X1K7,FCW1941C01R,

		De-Scope 2	BLDG_27410_FLR_01_RM_145_RACK_RN1_U17	FOC1951U0QV,FOC1951U0G4
		4	Bldg_28000_Floor_1_Room_Telco 1_Rack_1_	FDO1645Y18M
		4	Bldg_28009_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19F
		4	Bldg_3015_Floor_0001_Room_0001_Rack_0001_	FDO1645Y19U
		4	Bldg_3015A_Floor_0001_Room_0001_Rack_0001_	FDO1437X00W
		4	Bldg_3017_Floor_1_Room_Telco1_Rack_1_	FDO1738Y2P1
		4	Bldg_3019_Floor_0001_Room_Telco1_Rack_0001	FDO1633X19S
		4	Bldg_3025_Floor_0001_Rm_Telco1_Rack_0001_	SPE1728024S
		4	Bldg_3032_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3JT
		4	Bldg_3045_Floor_0001_Room_0001_Rack_0001_	FDO1437X02W
		4	Bldg_3049_Floor_0001_Room_#0001_Rack_0001_	FDO1709Y1TR
		4	Bldg_3065_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XT
		4	Bldg_3076_Floor_0001_Room_0001_Rack_0001_	FDO1437V231
		4	Bldg_3077_Floor_0001_Room_0001_Rack_0001_	FDO1645Y1AE
		2	Bldg_3077_Floor_0002_Room_LAN1_Rack_0001_	FXS1733Q0HG
		4	Bldg_3078_Floor_0001_Room_115_Rack_0001_	FXS1732Q0DL
		2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1431Z0Z2
		2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1431Z0YM
		2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1431Z0ZJ
		2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1438X022
		2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FOC1006Z3K2
		4	Bldg_3081T_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X19W
		4	Bldg_3081T2_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RQ
		4	Bldg_3083_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WT
		4	Bldg_3083A_Floor_1_Room_102_Rack_1_	FXS1733Q0HE
		4	Bldg_3086_Floor_0001_Room_COMPRM_Rack_0001_	SPE173000C8
		4	Bldg_3087_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3XM
		4	Bldg_3088_Floor_01_Room_Telco_01_B-Wing_Rack_01_	FDO1437V0Y5
		4	Bldg_3089_Floor_0001_Room_0001_Rack_0001_	FDO1437V0Y3
		4	Bldg_3090_Floor_1_Room_Telco 1_Rack_1_	FDO1645Y19C
		4	Bldg_3094_Floor_0001_Room_Telco1_Rack_0001_	FXS1733Q0J8
		4	Bldg_3094T_Floor_1_Room_Telco 1_Rack_1_	FDO1633X1A9
		4	Bldg_3095_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V0XF
		4	Bldg_3097_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L6

		4	Bldg_3098_Floor_0001_Room_105_BreakFix	FOC1623V0UF
		2	Bldg_3098_Floor_0001_Room_Telco1_Rack_0001_	SPE172801Z0
		2	Bldg_3098_Floor_0002_Room_Telco2_Rack_0001_	FXS1735Q2E8
		2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3M8
		2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3JW
		2	Bldg_3098_Floor_1_Room_Server	FOC1431Y4V9
		4	Bldg_3099_Floor_01_Room_Telco_01_Rack_01_	FDO1437X02G
		4	Bldg_3100_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AZ
		4	Bldg_3101_Floor_1_Room_Telco1_Rack_1_	FDO1710Y0PC
		4	Bldg_3169_Floor_0001_Room_0001_Rack_0001_	FDO1437V0XY
		4	Bldg_3186_Floor_1_Room_NB33_Rack_Telco1_	SPE172801YM
		4	Bldg_3202_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XE
		4	Bldg_3209_Floor_1_Room_Telco_Rack_1_	FDO1704Y2X4
		4	Bldg_3228_Floor_2_Room_Telco_1_Rack_1_	FDO1633X19C
		4	Bldg_3229_Floor_0001_Room_StagingRM_Rack_0004_	FOX1338GWWK
		4	Bldg_3230_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V24U
		4	Bldg_3232_Floor_1_Room_Telco_1_Rack_0001_	FDO1645Y14W
		4	Bldg_3240_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X38R
		4	Bldg_3250_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024R
		2	Bldg_3250_Floor_Basement_Room_CommCtr_Rack_0001_	FXS1732Q416
		4	Bldg_3250TRAILER_Floor_01_Room_01_Rack_01_	FXS1718Q1BJ
		4	Bldg_3252_Floor_0001_Room_Telco1_Rack_0001_	SPE1730008T
		2	Bldg_3252_Floor_1_Room_Shop51_Rack_1	FDO1720Y2HA
		4	Bldg_3255_Floor_0001_Room_0001_Rack_0001_	SPE1730008W
		2	Bldg_3255_Floor_0001_Room_0001_Rack_0003_	FOC1426W0P4
			Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1630HP53
			Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1633KRTE
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FOX1332G2VD
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0010_	SAL17173LBA
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1633KRT4
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1630HP5A
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7H
		2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7S
		2	Bldg_3255_Floor_0001_Room_SF_Rack_0010_	SAL172264PL

		2	Bldg_3255_Floor_0002_Room_Telco1_Rack_0001_	FXS1732Q3W3
		2	Bldg_3255_Floor_001_Room_ServerRm_Rack_163_	SPE151601B7
		2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1633KRTK
		2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1630HP58
		2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRTF
		2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRT6
	1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1633KRTJ
	1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1630HP4Q
		2	BLDG_3255_FLR_01_RM_102_RN3_U18	FCW1951C0E6,FCW1951D0LB,
		De-Scope 4	Bldg_3280_Floor_0001_Room_telco1_Rack_0001_	SPE173000D9
		De-Scope 2	Bldg_3280_Floor_0001_Room_Telco1_Rack_0001_	SPE173000EC
		De-Scope 2	Bldg_3280_Floor_0002_Rm_2East_Rack_0001_	FOX1338HAEJ
		De-Scope 2	Bldg_3280_Floor_0003_Rm_3West_Rack_0001_	FOX1338GWXD
		De-Scope 2	Bldg_3280_Floor_0003_Rm_SF_Rack_0001_	FOX1338GZZJ
		De-Scope 2	Bldg_3280_Floor_0003_Room_SF_Rack_0001_	FXS1735Q2EY
		De-Scope 2	Bldg_3280_Floor_0004_Rm_4West_Rack_0001_	FOX1338GZY8
		De-Scope 2	Bldg_3280_Floor_0005_Rm_5West_Rack_0001_	FOX1338GWXZ
		De-Scope 2	Bldg_3280_Floor_1West_Room_Telco1_Rack_0002_	FXS1733Q0SZ
		De-Scope 2	Bldg_3280_Floor_4_Rm_4East_Rack_0001_	FOX1338G3LZ
		De-Scope 2	Bldg_3280_Floor_5_Rm_5East_Rack_0001_	FOX1338G3KA
		De-Scope 4	Bldg_3300_Floor_0001_Rm_119_Rack_0001_	SPE1728024Q
		De-Scope 2	Bldg_3300_Floor_0001_Rm_131_Rack_0001_	SPE173000C7
	1		Bldg_3300_Floor_0001_Room_119_Rack_0001_	SAL171635U5
	1		Bldg_3300_Floor_0001_Room_119_Rack_0003_	SAL172264NP
		De-Scope 2	Bldg_3300_Floor_2_Rm_208_Rack_0001_	SPE173000F1
		De-Scope 2	Bldg_3300_Floor_2_Rm_216_Rack_0001_	FXS1732Q3ZJ
		De-Scope 2	Bldg_3300_Floor_2_Rm_242B_Rack_0001_	SPE1730009U
		De-Scope 2	Bldg_3300_Floor_3_Rm_312_Rack_0001_	FXS1732Q3DT
		De-Scope 2	Bldg_3300_Floor_3_Rm_322_Rack_0001_	SPE173000BY
		4	Bldg_3313_Floor_01_Room_Teco#_Rack_1_	FDO1437V27K
		4	Bldg_3400_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03J
		4	Bldg_3500_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03R
		4	Bldg_5001_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3D9
		4	Bldg_5002_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024U

		4	Bldg_505_Floor_0001_Room_0002_Rack_0001_	FDO1437V11T
		4	Bldg_5170_Floor_1_Rm_Telco1_Rack_0001_	FXS1735Q2DD
		4	Bldg_5172_Floor_0001_Room_0001_Rack_0001_	FDO1643Y2R8
		4	bldg_658_Floor_1_Room_0001_Rack_0001	FDO1437X02B
		4	bldg_660_Floor_1_Room_0001_Rack_0001	FDO1437V26X
		4	Bldg_69_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V13V
		4	Bldg_7_Floor_0001_Room_0001_Rack_0001_	FDO1437X35U
		4	Bldg_711A_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1X6
		4	Bldg_711C_Floor_Telco1_Room_0001_Rack_0001_	FDO1645Y198
		2	Bldg_711C_Floor_Telco1_Room_COMM_Rack_0001_	FDO1645Y1A8
		4	Bldg_715_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1B1
		4	Bldg_B5-9_Floor_0001_Room_0001_Rack_0001_	FDO1437X38P
		4	BLDG_GREENSPRINGS_FLR_01_RM_10_RN1_U9	FCW1951F0ND,FOC1951U0G3
		4	Bldg_QTRS C_Floor_Basement_Room_Telco1_Rack_1_	FDO1645Y190
		4	Bldg_QTRS1_Floor_BASEMENT_Room_0000_Rack_0001_	FDO1437X035
	1		Russel Knox	
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0	18	950		
				FOC0951Y3XY
				FOC1224Z19C
				FHG1413R0AZ
				FOC1951U1LV
				BP0210344659
				CA1710100238
				FOC2120R35P
				FOC2120R1DZ
				FDO21291CS0
				FDO21291CQK
				FHG1413R0B1

				FOC2035Z1HT
				FOC2035Z1HX
				JAE203400MW
			Bldg_1999_Floor_0001_Rm_0001_Rack_0001_	FTX1012A398
			Bldg_1999_Floor_0001_Room_MDF_Rack_0001_	FTX1110A2C0
			Bldg_2008_Floor_0002_Rm_ServerRoom_Rack_001	FTX1748AJ5X
			Bldg_2046_Floor_0001_Rm_Telco1_Rack_0001_	FTX1642856Q
			Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201NJ
			Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201N9
			Bldg_2100A_Floor_0001_Room_0001_Rack_0001_	FTX1642854U
			Bldg_24101_Floor_0001_Room_Telco1_Rack_0001_	FTX1642855Z
			Bldg_24162_Floor_1_Room_Telco1_Rack_1_	FTX1642856M
			Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FTX1012A38X
			Bldg_24204_Floor_0001_Room_105_Rack_0006_	FTX1012A38Z
			Bldg_27005_Floor_0001_Room_Telco1_Rack_0001_	FTX1642856J
1			Bldg_27028_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G4
			Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX1644AKYW
			Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FOC16403G1P
			Bldg_27219_Floor_2_Room_219_Rack_1_	FTX1642854Y
			Bldg_27263_Floor_0001_Room_0001_Rack_0001_	FTX1652A00M
			Bldg_27263_Floor_0001_Room_Telco1_Rack_001_	FOC16507USN
			BLDG_27410_FLR_01_RM_182_RN2_U30	FTX1644AKXN
1			Bldg_3084A_Floor_1_Room_Telco_Rack_1_	FOC1512V375
1			Bldg_3085B_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G0
			Bldg_3255_Floor_0001_Room_179_Rack_0002_	FDO1239Z0XQ
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0002_	SPE1447006J
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003_	FOX1229GJFK
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003_	FOX1045051Z
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FGE21252B1A
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FGE21252B1W
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004_	FDO1236Y09Q
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004_	FOX10450523
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0016_	JAE1943032Y
			Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	FOX1244GDUX

		Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	FOX1224GFZ4
		Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	SAL1630HP4W
		Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0112_	SAL13516P34
		BLDG_3255_RM_179_ROW_4_RACK_1	FOX1938G7PZ
		Building 3255, Room 179, Row 4, Rack 1, RU1	FTX1644AK5S
			FCW1949F0Z4,FCW1949C17X
		MCEN-ES	FOX1352GKYQ
		MCEN-ES	FHG1413R0BJ

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MCEN INS QUAN Nodes	MCEN	INS
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MCEN INS Legacy Nodes	MCEN	INS
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MARFORRES CLJN Nodes	MARFORRES	CLJN
MCEN INS QUAN Nodes	MCEN	INS
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MCEN INS Legacy Nodes	MCEN	INS
MCEN INS Legacy Nodes	MCEN	INS

OLT QUAN-U03-OL-01			
BLDG	ONT	COUNT	ONT SW
3			
	709GP	1	ONT709GP.3.21.3
72			
	140C	1	ONT140.1.7.34
1775			
	728GP	3	ONT728GP.3.20.7
1999			
	140C	1	ONT140.1.7.34
2044			
	728GP	54	ONT728GP.3.20.7
2076			
	709GP	1	ONT709GP.3.21.3
2118			
	140C	1	ONT140.1.7.34
2200			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
2202			
	709GP	1	ONT709GP.3.21.3
2203			
	709GP	2	ONT709GP.3.21.3
2204			
	709GP	1	ONT709GP.3.21.3
2207			
	709GP	1	ONT709GP.3.21.3
2208			
	709GP	1	ONT709GP.3.21.3
2209			
	709GP	1	ONT709GP.3.21.3
2210			
	709GP	1	ONT709GP.3.21.3
2247			
	709GP	1	ONT709GP.3.21.3
2248			
	709GP	1	ONT709GP.3.21.3
2249			
	709GP	1	ONT709GP.3.21.3
2301			
	728GP	1	ONT728GP.3.20.7
3077			
	728GP	1	ONT728GP.3.20.7
3086			
	709GP	1	ONT709GP.3.21.3
3230			
	709GP	1	ONT709GP.3.21.3

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BLDG	ONT	COUNT
1999		
	729GP	1
24005		
	729GP	1
24006		
	729GP	1
24008		
	729GP	2
24009		
	729GP	3
24015		
	729GP	1
24017		
	729GP	2
24018		
	729GP	1
24142		
	729GP	1
24144		
	729GP	1
24157		
	729GP	1
24164		
	729GP	4
24180		
	729GP	1
24191		
	729GP	1
24193		
	729GP	3
24194		
	729GP	1
24195		
	729GP	1
24196		
	729GP	1
24197		
	729GP	1
24198		
	729GP	1
24199		
	729GP	1
24200		
	729GP	1

3232			
	709GP	1	ONT709GP.3.21.3
3240			
	140C	1	ONT140.1.7.34
3259			
	709GP	1	ONT709GP.3.21.3
3399			
	709GP	1	ONT709GP.3.21.3
24204			
	709GP	1	ONT709GP.3.21.3
27282			
	709GP	1	ONT709GP.3.21.3
28000			
	709GP	1	ONT709GP.3.21.3
28009			
	709GP	1	ONT709GP.3.21.3
1//2			
	709GP	1	ONT709GP.3.21.3
2189A			
	709GP	1	ONT709GP.3.21.3
2201A			
	709GP	1	ONT709GP.3.21.3
2203A			
	709GP	1	ONT709GP.3.21.3
3230T			
	709GP	1	ONT709GP.3.21.3
TOTAL		92	
TOTAL		28	
TOTAL		64	

24204		
	729GP	1
27130		
	729GP	3
27282		
	729GP	1
27130C		
	729GP	2
TOTAL		38
TOTAL		31
TOTAL		7

140C
140W
709GP
728GP
729GP

5 4 port
4 4 port
40 4 port
60 24 Port
144 24 Port
253

Total 24 port switches Needed	De-Scope	146
Total SFP's	De-Scope	584

JAN-U07-OL-01

[illegible]

OLT Q

BLDG	ONT	COUNT
69		
	729GP	1
122		
	729GP	1
1304		
	729GP	1
1775		
	729GP	5
1999		
	140C	1
	140W	4
	729GP	3
2033		
	729GP	1
2044		
	729GP	17
2076		
	709GP	1
2117		
	709GP	1
2187		
	729GP	1
2200		
	709GP	1
2301		
	729GP	34
3065		
	729GP	1
3070		
	729GP	4
3186		
	729GP	1
3202		
	729GP	1
3228		
	709GP	1
3229		
	728GP	1
	729GP	1
3230		
	729GP	1
3240		
	729GP	1
3255		

ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591

	709GP	1
	729GP	2
3259		
	709GP	3
3280		
	729GP	1
3300		
	709GP	1
3311		
	729GP	2
3312		
	729GP	1
3313		
	729GP	1
3314		
	729GP	2
5001		
	729GP	2
5002		
	729GP	2
5003		
	729GP	1
2189A		
	709GP	1
2189N		
	729GP	2
3083A		
	729GP	1
TOTAL		107
TOTAL		40
TOTAL		67

- ** Red-Highlighted items already have MCEN-N presense within those bui
- ** All other legacy ONT devices will be replaced with C9300L-24P-4X-A s

JAN-U08-OL-01
ONT SW
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT140.1.7.34
ONT140.1.7.34
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT728GP.3.20.7
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591

OLT QU		
BLDG	ONT	COUNT
1999		
	729GP	1
26100		
	709GP	1
26164		
	729GP	1
26183		
	709GP	1
27170		
	729GP	1
27277		
	729GP	6
27278		
	729GP	2
27277A		
	709GP	1
27290TX		
	729GP	2
TOTAL		16
TOTAL		8
TOTAL		8

ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591

Iding arleady and are deemed out-of-scope until VSS.
witches

AN-U09-OL-01
ONT SW
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT729GP.3.20.7;ONT729_V005591
ONT709GP.3.21.3
ONT729GP.3.20.7;ONT729_V005591



Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24
INHZ-U00-IR-01	INHZ	Router	Cisco	CISCO2911/K9	
INHZ-U00-IR-04	INHZ	L3Switch	Cisco	WS-C3750G-12S-E	
INHZ-U00-IS-01	INHZ	Router	Cisco	SM-ES2-24	
INHZ-U00-OS-03	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S	
INHZ-U01-AS-01	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1
INHZ-U01-AS-02	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-S	
INHZ-U01-AS-03	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-E	
INHZ-U01-AS-04	INHZ	L3Switch	Cisco	WS-C4506-E	
INHZ-U01-AS-05	INHZ	L3Switch	Cisco	WS-C4506-E	
INHZ-U01-AS-06	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1
INHZ-U01-AS-07	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1
INHZ-U01-AS-08	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1
INHZ-U01-DS-01	INHZ	L3Switch	Cisco	WS-C3750G-12S-S	
Total					4

C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++=
			4
1			4
1			4
		3	4
		3	2
			4
			4
			4
		2	
2	6	2	30

Device Location	Serial Number	Partition
Naval Surface Warfare Center Indian Head MD Bldg 290	FTX1644AL07	MCEN INS QUAN Nodes
Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X2G5	MCEN INS QUAN Nodes
Naval Surface Warfare Center Indian Head MD Bldg 290	FOC16403FPC	MCEN INS QUAN Nodes
Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X1Z8	MCEN INS QUAN Nodes
Bldg_521_Floor_1_Rm_Warehouse_Rack_1	FDO1436X243	NCR QUAN Nodes
Bldg_700_Floor_1_Room_RouterRm_Rack_1_	FDO1623X01R	NCR QUAN Nodes
Bldg_2083_Floor_1_Room_storagecloset_Rack_1_	FDO1529X1YG	NCR QUAN Nodes
Bldg_901_Floor_1_Room_112_Rack_1_	SPE173000BG	NCR QUAN Nodes
Bldg_901_Floor_1_Room_Mail_Rack_1_	SPE173000CR	NCR QUAN Nodes
Bldg_290_Floor_1_Rm_MSF_Rack_AccessCab2	FDO1436X2S3	NCR QUAN Nodes
Bldg_D61_Floor_1_Room_Boiler_Rack_1_	FDO1645Y140	NCR QUAN Nodes
Bldg_870_Floor_1_Room_1_Rack_Wallrack_	FDO1437X03Q	NCR QUAN Nodes
Bldg_290_Floor_1_Room_MSF_Rack_8_	FDO1402Y2EK	NCR QUAN Nodes

[illegible]

Host Name	site	Device Type	Device Vendor	Device Model	24 Port
PKWY-U00-IR-01	PKWY	L3Switch	Cisco	WS-C6503-E	
PKWY-U00-IR-02	PKWY	L3Switch	Cisco	WS-C6503-E	
PKWY-U00-IS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S	
PKWY-U00-IS-04	PKWY	L3Switch	Cisco	WS-C3560V2-24TS-S	
PKWY-U00-OR-01	PKWY	L3Switch	Cisco	WS-C6503-E	
PKWY-U00-OR-02	PKWY	L3Switch	Cisco	WS-C6503-E	
PKWY-U00-OS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S	
PKWY-U01-AS-01	PKWY	L3Switch	Cisco	WS-C4506-E	
PKWY-U01-AS-02	PKWY	L3Switch	Cisco	WS-C4506-E	
PKWY-U01-AS-03	PKWY	L3Switch	Cisco	WS-C4506-E	
PKWY-U01-AS-04	PKWY	L3Switch	Cisco	WS-C4506-E	
PKWY-U01-AS-05	PKWY	L3Switch	Cisco	WS-C4506-E	
Total					

48 Port	C9300-48P-A 3X	SFP-10G-LR++=
	3	4
	3	2
	3	2
	3	2
	3	2
	15	12

Device Location	Serial Number	Partition
MCSC Tech Parkway Stafford VA	FOX1423GAQ3	MCEN INS QUAN Nodes
MCSC Tech Parkway Stafford VA	FOX1423GAQ2	MCEN INS QUAN Nodes
MCSC Tech Parkway Stafford VA	FDO1403X0CU	MCEN INS QUAN Nodes
MCSC Tech Parkway Stafford VA	FDO1437X3GW	MCEN INS QUAN Nodes
MCSC Tech Parkway Stafford VA	FOX1612GSN4	MCEN INS QUAN Nodes
MCSC Tech Parkway Stafford VA	FOX1612GSNH	MCEN INS QUAN Nodes
Bldg_PKWY_Floor_0001_Room_Telco1_Rack_0001	FDO1403X0CP	MCEN INS QUAN Nodes
Bldg_105_Floor_0001_Room_0004_Rack_0001_	FOX1415G443	NCR QUAN Nodes
Bldg_105_Floor_0001_Room_0004_Rack_0001_	SPE152500N1	NCR QUAN Nodes
Bldg_105_Floor_2_Room_PG10_Rack_5_	FOX1429G267	NCR QUAN Nodes
Bldg_105_Floor_2_Room_MRAP_Rack_4_	FOX1405G60H	NCR QUAN Nodes
Bldg_105TechPKY_Floor_GCSS_Room_Telco1_Rack_0003_	FOX1428H2JX	NCR QUAN Nodes

company	mitsc
MCEN	INS
MCEN	INS
MCEN	INS
MCEN	INS
MCEN	INS
MCEN	INS
MCEN	INS
NCR	QUAN
NCR	QUAN
NCR	QUAN
NCR	QUAN
NCR	QUAN

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48
SCPA-U00-IR-01	SCPA	Router	Cisco	3845		
SCPA-U00-OR-01	SCPA	Router	Cisco	3845		
SCPA-U01-AS-01	SCPA	L3Switch	Cisco	WS-C4506-E		
Total						

C9300-48P-A 3X	SFP-10G-LR++=	Device Location
		MCSC Barrett Heights Stafford VA Bldg 51
		MCSC Barrett Heights Stafford VA Bldg 51
3		4 Bldg_51BH_Floor_0002_Room_Telco1_Rack_0001_
3		4

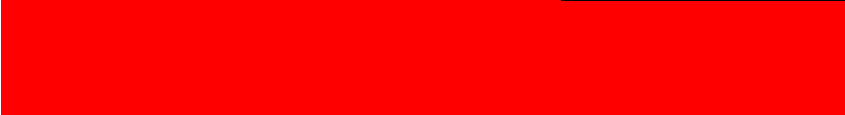
Serial Number	Asset Tag	Partition	count	company	mitsc
FTX1437AJGC,FOC12085P69		MCEN INS QUAN Nodes	5	MCEN	INS
FTX1437AJGF,FOC12085P6A		MCEN INS QUAN Nodes	5	MCEN	INS
SPE17280251		NCR QUAN Nodes	4	NCR	QUAN

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24
BAND-U00-IR-01	BAND	Router	Cisco	CISCO2911/K9	
BAND-U00-IS-01	BAND	Router	Cisco	SM-ES2-24	
BAND-U00-OR-01	BAND	Router	Cisco	ASR1002-X	
BAND-U01-AS-01	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	
BAND-U01-AS-02	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1
BAND-U01-AS-03	BAND	L3Switch	Cisco	WS-C3560V2-48TS-S	
BAND-U01-AS-05	BAND	L3Switch	Cisco	WS-C3560X-48T-S	
BAND-U01-AS-06	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1
BAND-U01-DS-01	BAND	L3Switch	Cisco	WS-C3750G-12S-S	

Total	0
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** Row 10 (WS-3750G-12S-S) can be taken out of scope since all access switche

C9300L-48	C9300-48P-A	SFP-10G-LR++=
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	De-Scope 1	De-Scope 4
		De-Scope 2
De-Scope 1		De-Scope 2
De-Scope 1		De-Scope 2
		De-Scope 2



	0	0	0
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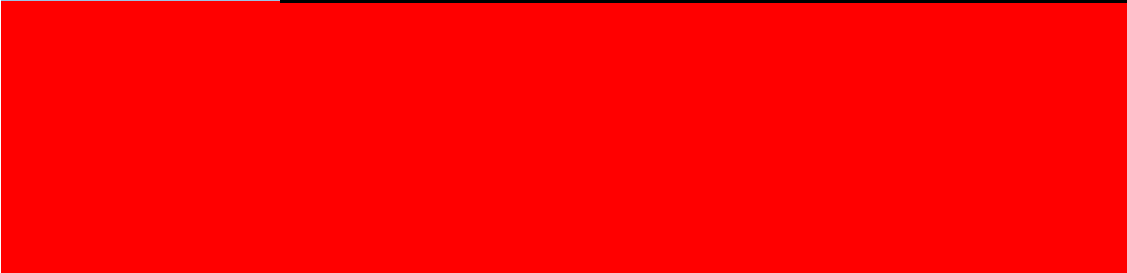
s will connect to row 5 (C9300-48P-A).

Device Location	Serial Number
Bldg_1_Floor_Basement_Room_Basement_Telco_Rack_1_	FTX1644AKUW
Bldg_1_Floor_Basement_Room_BasementTelco_Rack_1_	FOC16418358
Bldg_1_Floor_Basement_Room_Telco Rm_Rack_1_	FOX1829G0ZX
Bldg_1_Floor_Basement_Room_TelcoRm_Rack_1_	FDO1437V253
Bldg_1_Floor_1_Room_Lan RM_Rack_1_	FDO1621X11M
Bldg_1_Floor_2_Room_WireCloset_Rack_1_	FDO1623X01P
Bldg_1_Floor_2_Room_Telco Rm_Rack_1_	FDO1913P09U
Bldg_1_floor_Garage_Room_StorageRm_Rack_1_	FDO1437V25B
Bldg_1_Floor_Basement_Room_TelcoRM_Rack_1_	FDO1408X10T

[illegible]

Host Name	site	Device Type	Device Vendor	Device Model	24 Port
BRRK-U00-IR-01	BRRK	Router	Cisco	CISCO2921/K9	
BRRK-U00-IR-02	BRRK	Router	Cisco	CISCO2911/K9	
BRRK-U00-IS-01	BRRK	Router	Cisco	SM-ES2-24	
BRRK-U00-IS-02	BRRK	Router	Cisco	SM-ES2-24	
BRRK-U00-IS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U00-OR-01	BRRK	Router	Cisco	ASR1002-X	
BRRK-U00-OS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U01-AS-01	BRRK	L3Switch	Cisco	WS-C4506-E	De-Scope 1
BRRK-U01-AS-02	BRRK	L3Switch	Cisco	WS-C4506-E	
BRRK-U01-AS-03	BRRK	L3Switch	Cisco	WS-C4503-E	
BRRK-U01-AS-04	BRRK	L3Switch	Cisco	WS-C4503-E	
BRRK-U01-AS-05	BRRK	L3Switch	Cisco	WS-C4503-E	
BRRK-U01-AS-06	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U01-AS-07	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U01-AS-08	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U01-AS-09	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	
BRRK-U01-AS-10	BRRK	L3Switch	Cisco	WS-C3560V2-48TS-S	
BRRK-U01-DS-01	BRRK	L3Switch	Cisco	WS-C3750G-12S-S	
BRRK-U01-DS-02	BRRK	L3Switch	Cisco	WS-C3750G-12S-S	
Total					0

48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A
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De-Scope 3

De-Scope 3

De-Scope 2

De-Scope 2

De-Scope 2

De-Scope 1

De-Scope 1

De-Scope 1

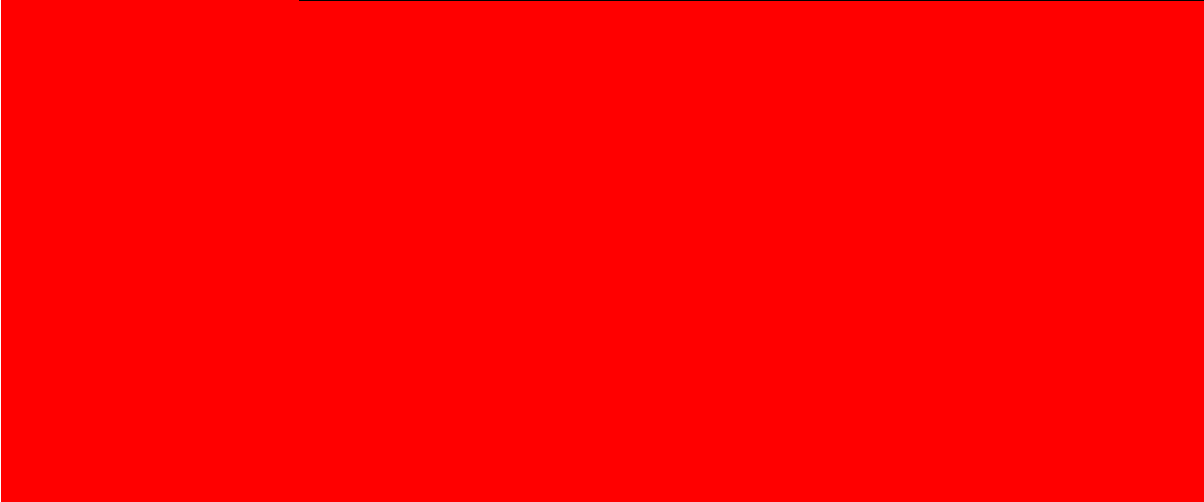
0	0	0	0
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SFP-10G-LR++=	Device Location	Serial Number
	Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AJKD
	Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AKRR
	Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC16403FY5
	Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC1641834K
	Bldg_700_Floor_2_Room_Server_Rack_2_	FDO1436X1ZL
	Bldg_700_Floor_2_Room_Server_Rack_3_	FOX1830GSKX
	Bldg_700_Floor_2_Room_Server_Rack_3_	FDO1436X265
De-Scope 4	Bldg_700_Floor_1_Room_S1_Rack_1_	SPE173400CX
De-Scope 2	Bldg_700_Floor_2_Room_mfd_Rack_1_	SPE173000ET
De-Scope 4	Bldg_9_Floor_Basement_Room_LAN Room_Rack_1_	FXS1733Q0TH
De-Scope 4	Bldg_20_Floor_Garage_Room_LanRoom_Rack_1_	FXS1735Q2F2
De-Scope 4	Bldg_21_Floor_1_Room_1_Rack_1_	FXS1733Q0YY
De-Scope 4	Bldg_QTRS1_Floor_Basement_Room_Comm_Rack_1_	FDO1436X2SJ
De-Scope 4	Bldg_QTRS2_Floor_Basement_Room_Comm_Rack_1_	FDO1436X26H
De-Scope 4	Bldg_QTRS3_Floor_Basement_Room_Comm_Rack_1_	FDO1436X1SK
De-Scope 4	Bldg_QTRS4_Floor_Basement_Room_Comm_Rack_1_	FDO1436X3J4
De-Scope 4	Bldg_CMC_Floor_Basement_Room_CommRm_Rack_1_	FDO1630X009
	Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CK
	Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CS

[illegible]

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24
WNYZ-L00-CB-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U	
WNYZ-L00-CB-02	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U	
WNYZ-L00-CB-03	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-S1U	
WNYZ-L00-IR-01	WNYZ	Router	Cisco	ASR1002-X	
WNYZ-L00-IS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U	
WNYZ-L00-OR-01	WNYZ	Router	Cisco	ASR1006	
WNYZ-L00-OS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U	
WNYZ-U00-IR-01	WNYZ	Router	Cisco	CISCO2911/K9	
WNYZ-U00-IR-02	WNYZ	Router	Cisco	CISCO2911/K9	
WNYZ-U00-IR-04	WNYZ	L3Switch	Cisco	WS-C3750G-12S-E	
WNYZ-U00-IS-01	WNYZ	Router	Cisco	SM-ES2-24	
WNYZ-U00-IS-02	WNYZ	Router	Cisco	SM-ES2-24	
WNYZ-U00-OS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	
WNYZ-U01-AS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1
WNYZ-U01-AS-04	WNYZ	L3Switch	Cisco	WS-C4506-E	
WNYZ-U01-AS-05	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1
WNYZ-U01-AS-06	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U	De-Scope 1
WNYZ-U01-AS-07	WNYZ	L3Switch	Cisco	WS-C4503-E	
WNYZ-U01-AS-08	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1
WNYZ-U01-DS-01	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S	
WNYZ-U01-DS-02	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S	
Total					0

C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A
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De-Scope 3

De-Scope 2

De-Scope 1
De-Scope 1

	0	0	0
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SFP-10G-LR++=	Device Location	Serial Number
	MCEN-ES	FOC1110Z342
		FOC0935U0UT
		FOC1030Y47D
		FOX1830GSKY
		FOC1110Z20E
		FXS1817Q2D3
		FOC1110Y2BD
		FTX1644AKZ6
		FTX1644AL58
		FDO1436X2HF
	MCEN-ES Bldg_196_Floor_2_Room_Server Farm_Row_8_Rack_2_ Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_ Bldg_220_Floor_2_Room_220_Rack_1_ Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_ Bldg_196_Floor_2_Room_Server Farm_Row_8_Rack_2_ Bldg_196_Floor_2_Room_ServerFarm_Rack_2/RowA_	FOC17440MJX
		FOC17440MG6
		FDO1529X1J2
De-Scope 4	Bldg_196_Floor_3_Room_302_Rack_1_	FDO1645Y12P
De-Scope 4	Bldg_220_Floor_2_Room_220_Rack_1_	FOX1346GVRV
De-Scope 4	Bldg_211_Floor_1_Room_Telco	FDO1542X352
De-Scope 4	Bldg_196_Floor_2_Room_243_Rack_16_	FOC1209Z4UT
De-Scope 4	Bldg_169_Floor_1_Room_Storage_Rack_1_	FXS1735Q2E7
De-Scope 4	Bldg_Qtrs V_Floor_2_Room_upstair_Rack_1_ Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_ Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1645Y135 FDO1402Y2EB FDO1402Y2FX

[illegible]

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24
ANNZ-U00-IR-01	ANNZ	Router	Cisco	CISCO3925-CHASSIS	
ANNZ-U00-IS-01	ANNZ	Router	Cisco	SM-ES2-24	
ANNZ-U00-OS-03	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S	
ANNZ-U01-AS-02	ANNZ	L3Switch	Cisco	WS-C4506-E	
ANNZ-U01-AS-03	ANNZ	L3Switch	Cisco	WS-C3560-48TS-S	
ANNZ-U01-AS-04	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1
ANNZ-U01-AS-05	ANNZ	L3Switch	Cisco	WS-C3750G-24TS-S	1
ANNZ-U01-AS-99	ANNZ	Router	Cisco	C891F-K9	
ANNZ-U01-BI-01	ANNZ	Router	Cisco	CISCO2921/K9	
ANNZ-U01-DH-01	ANNZ	Router	Cisco	2811	
ANNZ-U01-DP-02	ANNZ	Router	Cisco	CISCO2911/K9	
ANNZ-U01-ES-02	ANNZ	Router	Cisco	SM-ES2-24	
Total					2

C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=
1	3		4
			2
			2
			2
1	3	0	10

Device Location	Serial Number	Partition	company
Bldg_72_Floor_1_Room_140_Rack_1_	FTX1644AHV3	MCEN INS QUAN Nodes	MCEN
Bldg_72_Floor_1_Room_140_Rack_1_	FOC16403FQA	MCEN INS QUAN Nodes	MCEN
Bldg_72_Floor_1_Room_143_Rack_1_	FDO1436X26E	MCEN INS QUAN Nodes	MCEN
Bldg_351_Floor_1_Room_Admin_Rack_1_	FXS1732Q0DX	HQMC QUAN Nodes	HQMC
Bldg_351_Floor_2_Room_1_Rack_1_	FDO1431Z0YP	HQMC QUAN Nodes	HQMC
Bldg_352B_Floor_1_Room_1_Rack_1_	FDO1632X2QY	HQMC QUAN Nodes	HQMC
Bldg_352A_Floor_1_Room_1_Rack_1_	CAT1050RGD2	HQMC QUAN Nodes	HQMC
Bldg_351_Floor_1_Room_120_Rack_FSRDesk	FJC2034L1RJ	MARFORRES CLJN Nodes	MARFORRES
VERIZON-CIRCUIT-ID (BCBKSDH60001) T-1	FTX1424AHN8	MARFORRES CLJN Nodes	MARFORRES
Bldg_351_Floor_1_Room_109_Rack_1_	FTX1436A0XC	HQMC QUAN Nodes	HQMC
Bldg_400A_Floor_1_Room_1_Rack_1_	FTX1644AKYX	HQMC QUAN Nodes	HQMC
Bldg_400A_Floor_1_Room_1_Rack_1_	FOC1614709K	HQMC QUAN Nodes	HQMC

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Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++	Total Ports per Site
QUAN	(b)(4)											
GPOH												
INH2												
PKWY												
SCPA												
BAND												
BRBK												
WNYZ												
ANN2												

Total	(b)(4)											
	(b)(4)											

C9300L-24P-4X-A	(b)(4)
C9300L-48P-4X-A	
C9300-48P-A	
Total EUB Switches	
C9300-48P-A With NM-8X	
C9300-48P-A With No NM	
STACK-T1-3M	
CAB-SPWR-150CM	

(b)(4)

Host Name	Site	Device Type	Device Vendor	Device Model	Serial Number	Partition	Company	Mitig.
(b)(4)								

(b)(4)

				Total															

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Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48V4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)														
Total					(b)(4)									

[illegible]

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
(b)(4)													
Total					(b)(4)								
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Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
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Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A-2X	C9300-48P-A-3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	mitsc
(b)(4)															
Total					(b)(4)										

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	mitsc
(b)(4)														

Total	(b)(4)
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PERFORMANCE SPECIFICATION FOR MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA

3 Mar 2021



Prepared By:

**UNITED STATES MARINE CORPS
Marine Corps Systems Command
Supporting Establishment Systems
PMM170 Network and Infrastructure**

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1 GENERAL

This is a Firm-Fixed-Price (FFP) Contract, for the Network Communications Infrastructure (NCI) program office to modernize the enterprise communications infrastructure aboard Marine Corps Base (MCB) Quantico, VA.

The services included in this FFP contract will be non-personal services. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the contractor who, in turn is responsible to the Government. The Government will describe the specific performance requirements at the task and delivery order level, but all work performed will fall within the general scope described herein.

1.1 DESCRIPTION OF SERVICES / INTRODUCTION

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform modernization and sustainment services as defined in this Performance Specification except for those items specified as Government Furnished Property (GFP) and services. The contractor shall perform to the standards articulated in this contract.

1.2 BACKGROUND

Traditionally, Marine Corps Systems Command (MCSC), NCI Program Office (previously known as the Base Telecommunications Infrastructure) has been responsible for the upgrade and expansion of the Marine Corps' legacy Time Division Multiplexing (TDM) voice systems, Synchronous Optical Network (SONET), and outside plant (OSP) cable infrastructure. These previous efforts were typically executed via individual FFP Contracts. Due to advancing technologies and increased requirements, the BTI mission expanded to include the complete modernization/replacement of all Low Speed Time Division Multiplexing (LSTDM) technologies. More recently, the NCI mission has expanded to include the modernization of the Distribution and Access Layer Transport infrastructure to the End-User Building (EUB). As a result, NCI is now responsible for the modernization and sustainment of the Base Area Network (BAN)/Local Area Network (LAN) and the Unified Communications (UC) at every Marine Corps Installation (MCI).

1.3 OBJECTIVES

The objective of this initiative is the complete modernization of the Base Telecommunications Infrastructure (BTI) aboard MCB Quantico in accordance with (IAW) the Marine Corps Wide Area Network (WAN) Transport Implementation Plan that aligns with the normalization of the Joint Information Environment (JIE). This will be realized through the enterprise-wide deployment of homogeneous systems and subsystems in order to minimize operation demands on Installation personnel and simplify sustainment activities for the NCI Program Office. This modernization effort shall include the BAN Transport and Unified Communications aboard MCB Quantico that will support the details in Sections 5.1 and 8.2 of this PWS. The overall intent of this PWS is to establish a standardized enterprise solution with the flexibility for a System Integrator (SI) to support sustainment activities that includes technical refresh and unforeseen systems upgrades to hardware, software, and ancillary equipment.

1.4 SCOPE

This PWS establishes and defines the requirements for the contractor to Engineer, Furnish, Install, Secure, Test (EFIST) and make operational a turnkey BAN Transport and Enterprise UC Voice solution for the modernization of the existing communication infrastructure at MCB Quantico – or other USMC facilities as defined by the Government – to include enterprise integration and convergence. The contractor shall also provide all ancillary equipment, labor, training, software, firmware, licenses, grounding, and interfaces associated with these systems to deliver a complete turnkey solution. The contractor shall provide all supporting documentation associated with the delivered solution.

1.5 ORDERING PERIOD / PERIOD OF PERFORMANCE

The delivery for this modernization effort will be 18 months after contract award.

1.6 GENERAL INFORMATION

1.6.1 RECONGNIZED HOLIDAYS

The contractor is not required to perform work or services on the Federal Government holidays identified below.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

1.6.2 HOURS OF OPERATION

The contractor shall provide services IAW Marine Corps Systems Command Order 5530.2, working hours for on-site contractors shall be within 0630-1800 local time. All work shall typically be performed within the Government-defined core hours. There may be a need for occasional work outside of normal Government-defined core hours. No overtime will be authorized.

1.6.3 PLACE OF PERFORMANCE

The work to be performed under this FFP Contract will be performed at MCB Quantico in Quantico, VA.

1.6.4 TYPE OF CONTRACT

The Government will award a FFP Contract issued for specific work at MCB Quantico.

1.6.5 PHYSICAL SECURITY

The contractor shall be responsible for safeguarding all Government equipment, information and property provided for contractor use. At the close of each work period, Government facilities, equipment, and materials shall be secured.

1.6.6 SECURITY REQUIREMENTS

The information provided to the contractor will be unclassified and/or Controlled Unclassified Information (CUI). Certain contractors will be required to perform IT-I/II duties that require favorably adjudicated Tier 5/3 Level investigations. The Defense Counterintelligence Security Agency (DCSA) will not authorize contractors to submit the necessary Tier Level investigations, solely in support of IT level designation requirements, without a valid classified requirement as specified in a DD-254. This effort does not warrant a DD-254, therefore the Government Contracting Activity Security Office (GCASO) is required to submit any required investigations in support of IT level designations. The contractor is required to provide a roster of prospective contractor employees performing IT Level II and/or IT Level I duties to the MCSC Contracting Officer's Representative (COR). This roster shall include: full names, Social Security Numbers, IT Level required, e-mail address, and phone number for each contractor requiring investigations in support of IT Level designations. The COR will verify the IT Level requirements and forward the roster to the GCASO. Contractors found to be lacking required investigations will be contacted by the GCASO.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) via encrypted e-mail to MCSC_Security@usmc.mil or 703-432-3374/3952 if any contractor performing on this contract receives an unfavorable adjudication. The FSO must also notify the PERSEC Office, within 24 hours, of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor performing on this contract, if they have been granted an IT designation, issued a CAC and/or a MCSC Building Badge. The FSO shall notify the Government (written notice) within 24 hours of any contractor personnel added or removed from the contract that have been granted IT designations, issued a Common Access Card (CAC) and/or a MCSC Building badge/access.

1.6.6.1 DEFENSE BIOMETRIC IDENTIFICATION CARD

Certain contractors may require the issuance of a Defense Biometric Identification (DBID) card in order to gain access to MCB Quantico. The Contracting Officer Representative (COR) will identify and approve only those contractor personnel performing on this contract that require a DBID card in order to perform their job function aboard the base.

1.6.6.2 VENDOR SCREENING

The contractor shall return a completed Contractor Screening Form, which will be provided as Attachment (5) to the SF1449, in order to identify all contractor personnel requiring access to Installations/Detachments, base facilities, and/or handling Government assets. This form includes personal identification information for respective contractor personnel and shall be either: hand delivered to the Installation Technical Support Officer (TSO) or sent in a password protected document. If the vendor screening form is sent via e-mail, the password shall be provided and sent in a separate email. The contractor shall provide a completed form to the TSO no later than two (2) weeks prior to the start of work for processing and vetting by the Installation/Detachment Security Office. The Security Office will respond with any favorable or unfavorable screening outcomes as they are received from the Installation Provost Marshall's Office (PMO). Any personnel receiving an unfavorable outcome will not be authorized access to the Installation for the purpose of performing work related to this contract.

All required escorts shall be provided by Base, G/S-6 staff. It is the contractor's responsibility to secure any facility upon exiting the facility for which they are provided a key and unescorted access. The Base, G/S-6 will exercise security supervision over all contractor personnel working on this project and will provide security support to the contractor. The contractor shall comply with all emergency rules and procedures established for this Base. All personnel aboard the Base are subject to random inspections of their vehicles, personal items, and of themselves. Consent to these inspections is considered to have been given upon entrance to the base and its facilities. Photography, videotaping, and/or audio recordings aboard the base are strictly prohibited without proper authorization by the local Base authorities.

1.6.6.3 COMMON ACCESS CARD

The COR will identify and only approve those contractor employees performing on this contract that require CACs in order to perform their job function. In accordance with Headquarters, United States Marine Corps issued guidance relative to Homeland Security Presidential Directive – 12 (HSPD-12), all personnel must meet eligibility criteria to be issued a CAC. In order to meet the eligibility criteria, contractor employees requiring a CAC must obtain and maintain a favorably adjudicated Personnel Security Investigation (PSI). Prior to authorizing a CAC, the employee's Joint Personnel Adjudication System (JPAS) record must indicate a completed and favorably adjudicated PSI or (at a minimum) that a PSI has been submitted and accepted (opened). The minimum acceptable investigation is a T-1 or a National Agency Check with Written Inquiries (NACI). If a contractor employee's open investigation closes and is not favorably adjudicated, the CAC must be immediately retrieved and revoked. CACs are not issued for convenience.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) at 703-432-3490/3952 if any contractor performing on this contract receives an unfavorable adjudication after being issued a CAC. The FSO must also immediately notify the PERSEC Office of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor issued a CAC, regardless of whether a JPAS Incident Report is submitted.

Each CAC is issued with a "ctr@usmc.mil" e-mail account that the individual contractor is responsible to keep active by logging in on a regular basis (at least twice a month), sending an e-mail and clearing any unneeded e-mails. Contractors issued a CAC are prohibited from "auto-forwarding" e-mail from their .mil e-mail account to their .com e-mail account. If the "ctr@usmc.mil" e-mail account is not kept active, G-6 will deactivate the account and the CAC will also lose its functionality. Contractor employees shall solely use their government furnished "ctr@usmc.mil" e-mail accounts for work supporting the USMC, conducted in fulfillment of this contract, and shall not use a contractor supplied or personal e-mail account to conduct FOUO government business. The use of a contractor or personal e-mail account for contractor business or personal use is allowed, but only when using cellular or a commercial internet service provider.

If a contractor loses their eligibility for a CAC due to an adverse adjudicative decision, they have also lost their eligibility to perform on MCSC contracts.

1.6.6.4 MARINE CORPS ENTERPRISE NETWORK COMPUTER ACCESS

Contractor personnel accessing Marine Corps Systems Command Computer systems must maintain compliance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access

Guide. Contractor personnel will submit a DD Form 2875, Systems Authorization Access Request (SAAR), and completion certificates for the CYBERC course located on MarineNet at <https://www.marinenet.usmc.mil>. The CYBERC course consists of the DoD Cyber Awareness Challenge and Department of the Navy Annual Privacy Training on Personally Identifiable Information (PII). Contractors will have to create a MarineNet account in order to acquire the required training.

Marine Corps Enterprise Network (MCEN) Information Technology (IT) resources if provided are designated For Official Use Only (FOUO) and other limited authorized purposes. DoD military, civilian personnel, consultants, and contractor personnel performing duties on MCEN information systems may be assigned to one of three position sensitivity designations.

1. ADP-I (IT-1): Favorably adjudicated T-5, T5R, (formerly known as Single Scope Background Investigation (SSBI)/SSBI Periodic Reinvestigation (SBPR)/SSBI Phased Periodic Reinvestigation (PPR))
2. ADP-II (IT-2): Favorably adjudicated T-3, T3R, (formerly known as Access National Agency Check and Inquiries (ANACI)/ National Agency Check with Law and Credit (NACLC)/Secret Periodic Review (S-PR))
3. ADP-III (IT-3): Completed T-1, (formerly known as National Agency Check with Inquiries (NACI))

All privileged users (IT-1) must undergo a T-5 investigation regardless of the security clearance level required for the position. Privileged users must maintain the baseline Cyberspace Workforce Cybersecurity Technical (CST) or Cybersecurity Manager (CSM) relating to the position being filled. Privileged users are defined as anyone who has privileges over a standard user account as in system administrators, developers, network administrators, code signing specialist and Service Desk technicians.

All MCEN users must read, understand, and comply with policy and guidance to protect classified information and Controlled Unclassified Information (CUI), and to prevent unauthorized disclosures in accordance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access Guide and CJCSI 6510.01F.

MCEN Official E-mail Usage - MCEN IT resources are provided FOUO and other limited authorized purposes. Authorized purposes may include personal use within limitations as defined by the supervisor or the local command. Auto forwarding of e-mail from a MCEN Non-classified Internet Protocol Network MCEN-N) to commercial or private domains (e.g., Hotmail, Yahoo, Gmail, etc.) is strictly prohibited. E-mail messages requiring either message integrity or non-repudiation are digitally signed using DoD Public Key Infrastructure (PKI). All e-mail containing an attachment or embedded active content must be digitally signed.

MCEN users will follow specific guidelines to safeguard CUI, including PII and FOUO. Non-official e-mail is not authorized for and will not be used to transmit CUI to include PII and Health Insurance Portability and Accountability Act (HIPAA) information. Non-official e-mail is not authorized for official use unless under specific situations where it is the only mean for communication available to meet operational requirements. This can occur when the official MCEN provided e-mail is not available but must be approved prior to use by the Marine Corps Authorizing Official (AO).

All personnel will use DoD authorized PKI certificates to encrypt e-mail messages if they contain any of the following:

1. Information that is categorized as FOUO or Sensitive but Unclassified (SBU).
2. Any contract sensitive information that normally would not be disclosed to anyone other than the intended recipient.
3. Any privacy data, PII, or information that is intended for inclusion in an employee's personal file or any information that would fall under the tenets of MSGID: DOC/5 USC 552A. Personal or commercial e-mail accounts are not authorized to transmit unencrypted CUI or PII.
4. Any medical or health data, to include medical status or diagnosis concerning another individual.
5. Any operational data regarding status, readiness, location, or deployment of forces or equipment.

1.6.6.5 KEY CONTROL

The contractor shall establish and implement methods of making sure all keys/key cards issued to the contractor by the Government are not lost or misplaced and are not used by unauthorized persons.

NOTE: All references to keys include key cards.

No keys issued to the contractor by the Government shall be duplicated. The contractor shall develop procedures covering key control that shall be included in the Quality Control Plan. Such procedures shall include turn-in of any issued keys by personnel who no longer require access to locked areas. The contractor shall immediately report any occurrences of lost or duplicate keys/key cards to the Contracting Officer.

In the event keys, other than master keys, are lost or duplicated, the contractor shall, upon direction of the Contracting Officer, re-key or replace the affected lock or locks; however, the Government, at its option, may replace the affected lock or locks or perform re-keying. When the replacement of locks or re-keying is performed by the Government, the total cost of re-keying or the replacement of the lock or locks shall be deducted from the next payment due the contractor. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced by the Government and the total cost deducted from the next payment due the contractor.

The contractor shall prohibit the use of Government issued keys/key cards by any persons other than the contractor's employees. The contractor shall prohibit the opening of locked areas by contractor employees to permit entrance of persons other than contractor employees engaged in the performance of assigned work in those areas, or personnel authorized entrance by the Contracting Officer.

1.6.6.6 LOCK COMBINATIONS

The contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. The contractor shall ensure that lock combinations are changed when personnel having access to the combinations no longer have a need to know such combinations. These procedures shall be included in the contractor's Quality Control Plan.

1.6.7 POST AWARD CONFERENCE/PERIODIC MEETINGS

The contractor agrees to attend any post award conference convened by the contracting activity in accordance with Federal Acquisition Regulation Subpart 42.5. The Contracting Officer, Contracting Officer's Representative (COR), and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the Contracting Officer will apprise the contractor of how the Government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.6.8 CONTRACTING OFFICER'S REPRESENTATIVE

The COR(s) will be identified by separate letter(s) and monitors all technical aspects of the FFP Contract, task and delivery orders, and assists in contract administration. The COR(s) is authorized to perform the following functions: assure that the contractor performs the technical requirements of the contract; perform inspections necessary in connection with contract performance; maintain written and oral communications with the contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor contractor's performance and notify both the Contracting Officer and contractor of any deficiencies; coordinate availability of Government Furnished Property (GFP); and provide site entry of contractor personnel. A letter of designation issued to the COR(s), a copy of which is sent to the contractor, states the responsibilities and limitations of the COR(s), especially regarding changes in price estimates or changes in delivery dates or periods of performance. The COR(s) is/are not authorized to change any of the terms and conditions of the resulting order, especially any terms that affect price, delivery schedule, or period of performance.

1.6.9 KEY PERSONNEL

The contractor shall provide a Project Manager who shall be responsible for the performance of the work. The name of this person and an alternate who shall act for the contractor when the manager is absent shall be designated in writing to the Contracting Officer. The Project Manager or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract.

The Project Manager or alternate shall be available between 8:00 AM to 4:30 PM, Monday thru Friday based on the time zone of the location/Installation except Federal holidays or when the Government facility is closed for administrative reasons.

Qualifications for all key personnel are listed in Table 1.

Table 1 – Key Personnel*

KEY PERSONNEL	CERTIFICATIONS	EXPERIENCE	SKILL	PROJECT SEQUEMENT
Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and organizational skills	Implementation
On-Site Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and supervisory skills	Implementation
Quality Control/Quality Assurance Manager	BICSI Installer Certified	7 Years QC/QA Management	Proven telecommunications quality management skills	Implementation
Lead Systems Engineer (LSE)	BS Science/Engineering	10 Years Engineering Discipline	Licensed Professional Engineer (PE)	Implementation
Network/Telecommunications Engineer	Registered Communications Distribution Design (RCDD)	10 Years Network/Telecommunications	Proven telecommunications design and installation skills	Implementation
Logistician	Certified Professional Logistician	5 Years Logistics Management	Proven leadership, management, and organizational skills	Sustainment

* For the Quality Control/Quality Assurance Manager, the Contractor may swap 5 years of relevant QC/QA experience for the BICSI certification.

* For the Logistician, the Contractor may swap 5 years of logistics experience for the Certified Professional Logistician certification

1.6.10 IDENTIFICATION OF CONTRACTOR EMPLOYEES

All contract personnel attending meetings, answering Government telephones, and working in any situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed. Contractors shall obtain visitor badges in accordance with MCB Quantico security policy.

1.6.11 CONTRACTOR TRAVEL

The contractor may be required to travel to off-site training locations and to ship training aids to these locations in support of this PWS. Contractor may be authorized travel expenses consistent with the substantive provisions of the Federal Acquisition Regulation 31.205-46 and the limitation of funds specified in each task and delivery order. All travel requires prior Government approval/authorization by the COR(s).

1.6.12 ORGANIZATION CONFLICT OF INTEREST

To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the contractor shall protect the data from unauthorized use and disclosure and agrees not to use it to compete with those other companies.

1. “Organizational Conflict of Interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the government, or the person’s objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. “Person” as used herein includes corporations, partnerships, joint ventures, and other business enterprises.

2. The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in the contract, the contractor does not have any organizational conflict of interest(s) as defined in paragraph (1).
3. It is recognized that the effort to be performed by the contractor under this contract may create a potential organizational conflict of interest on the instant contract or on a future acquisition. In order to avoid potential conflict of interest, and at the same time to avoid prejudicing the best interest of the government, the right of the contractor to participate in future procurement of equipment and/or services that are the subject of any work under this contract shall be limited as described below in accordance with the requirements of FAR Subpart 9.5.
4. The contractor agrees:
 - a) That it shall not release, disclose, or use in any way that would permit or result in disclosure to any party outside the government any information provided to the contractor by the government during or as a result of performance of this contract. Such information includes, but is not limited to, information submitted to the government on confidential basis by other persons. Further, the prohibition against release of government provided information extends to cover such information whether or not in its original form, e.g., where the information has been included in contractor generated work or where it is discernible from materials incorporating or based upon such information. This prohibition shall not expire after a given period of time. See, DFARS 252.204-7000, Disclosure of Information, included in the contract.
 - b) The contractor agrees that it shall not release, disclose, or use in any way that would permit or result in disclosure or any party outside the government any information generated or derived during or as a result of performance of this contract.
 - c) The prohibitions contained in subparagraphs (4)(a) and (4)(b) shall apply with equal force to any affiliate of the contractor, any subcontractor, consultant, or employee of the contractor, any joint venture involving the contractor, any entity into or with which it may merge or affiliate, or any successor or assign of the contractor. The terms of paragraph (f) of the Special contractor Requirement relating to notification shall apply to any release of information in contravention of this paragraph (4).
5. The contractor further agrees that during the performance of this contract and for a period of three years after completion of performance of this contract, the contractor; any affiliate of the contractor; any subcontractor, consultant, or employee of the contractor; any joint venture involving the contractor; any entity into or with which it may subsequently merge or affiliate; or any other successor or assign of the contractor, shall not furnish to the Marine Corps, either as a prime contractor or as a subcontractor, or as a consultant to a prime contractor or as a subcontractor, any system, component or services which is the subject of the work to be performed under this contract. This exclusion does not apply to any re-competition for those systems, components, or services on the basis of work statements growing out of the effort performed under this contract, developed from a source other than the contractor, subcontractor affiliate, or assign of either. During the course of performance of this contract or before the three-year period following completion of this contract has lapsed, the contractor may, with the authorization of the cognizant contracting officer, participate in a subsequent procurement for the same system, component, or service. In other words, the contractor may be authorized to

compete for procurement(s) for systems, components or services subsequent to an intervening procurement.

6. The contractor agrees that, if after award, it discovers an actual or potential organizational conflict of interest; it shall make immediate and full disclosure in writing to the contracting officer. The notification shall include a description of the actual or potential organizational conflict of interest, a description of the action, which the contractor has taken or proposes to take to avoid, mitigate, or neutralize the conflict, and any other relevant information that would assist the contracting officer in making a determination on this matter. Notwithstanding this notification, the government may terminate the contract for the convenience of the government if determined to be in the best interest of the government.
7. Notwithstanding paragraph (6) above, if the contractor was aware, or should have been aware, of an organizational conflict of interest prior to the award of this contract or becomes, or should become aware of an organizational conflict of interest after award of this contract and does not make an immediate and full disclosure in writing to the contracting officer, the government may terminate this contract for default.
8. If the contractor takes any action prohibited by this requirement or fails to take action required by this requirement, the government may terminate this contract by default.
9. The contracting officer's decision as to the existence or nonexistence of the actual or potential organization conflict of interest shall be final and is not subject to the clause of this contract entitled "DISPUTES" (FAR 52.233.1).
10. Nothing in this requirement is intended to prohibit or preclude the contractor from marketing or selling to the United States Government its product lines in existence on the effective date of this contract; nor, shall this requirement preclude the contractor from participating in any research and development. Additionally, sale of catalog or standard commercial items are exempt from this requirement.
11. The contractor shall promptly notify the contracting officer, in writing, if it has been tasked to evaluate or advise the government concerning its own products or activities or those of a competitor in order to ensure proper safeguards exist to guarantee objectivity and to protect the government's interest.
12. The contractor shall include this requirement in subcontracts of any tier which involve access to information or situations/conditions covered by the preceding paragraphs, substituting "subcontractor" for "contractor" where appropriate.
13. The rights and remedies described herein shall not be exclusive and are in addition to other rights and remedies provided by law or elsewhere included in this contract. 5.4. Proprietary Information Exchange Agreement (PIEA)/Non-Disclosure Agreements (NDA). The contractor shall arrange the signature on all PIEA/non-disclosure agreements necessary to interface with other contractors to accomplish the contract requirements in accordance with FAR 9.505-4 prior to beginning any efforts associated with this PWS. Copies of all non-disclosure agreements required for this contract shall be provided to the Contracting Officer and COR.

1.6.13 SYSTEM SECURITY PLAN

1. System Security Plan and Plans of Action and Milestones (SSP/POAM) Reviews

- a) Within thirty (30) days of contract award, the Contractor shall make its System Security Plan(s) (SSP(s)) for its covered contractor information system(s) available for review by the Government at the contractor's facility. The SSP(s) shall implement the security requirements in Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.204-7012, which is included in this contract. The Contractor shall fully cooperate in the Government's review of the SSPs at the Contractor's facility.
- b) If the Government determines that the SSP(s) does not adequately implement the requirements of DFARS clause 252.204-7012 then the Government shall notify the Contractor of each identified deficiency. The Contractor shall correct any identified deficiencies within thirty (30) days of notification by the Government. The contracting officer may provide for a correction period longer than thirty (30) days and, in such a case, may require the Contractor to submit a plan of action and milestones (POAM) for the correction of the identified deficiencies. The Contractor shall immediately notify the contracting officer of any failure or anticipated failure to meet a milestone in such a POAM.
- c) Upon the conclusion of the correction period, the Government may conduct a follow-on review of the SSP(s) at the Contractor's facilities. The Government may continue to conduct follow-on reviews until the Government determines that the Contractor has corrected all identified deficiencies in the SSP(s).
- d) The Government may, in its sole discretion, conduct subsequent reviews at the Contractor's site to verify the information in the SSP(s). The Government will conduct such reviews at least every three (3) years (measured from the date of contract award) and may conduct such reviews at any time upon thirty (30) days' notice to the Contractor.

2. Compliance to NIST 800-171

- a) The Contractor shall fully implement the CUI Security Requirements (Requirements) and associated Relevant Security Controls (Controls) in NIST Special Publication 800-171 (Rev. 1) (NIST SP 800-171), or establish a SSP(s) and POA&Ms that varies from NIST 800-171 only in accordance with DFARS clause 252.204-7012(b)(2), for all covered contractor information systems affecting this contract.
- b) Notwithstanding the allowance for such variation, the contractor shall identify in any SSP and POA&M their plans to implement the following, at a minimum:
 - (1) Implement Control 3.5.3 (Multi-factor authentication). This means that multi-factor authentication is required for all users, privileged and unprivileged accounts that log into a network. In other words, any system that is not standalone should be required to utilize acceptable multi-factor authentication. For legacy systems and systems that cannot support this requirement, such as CNC

equipment, etc., a combination of physical and logical protections acceptable to the Government may be substituted;

(2) Implement Control 3.1.5 (least privilege) and associated Controls, and identify practices that the contractor implements to restrict the unnecessary sharing with, or flow of, covered defense information to its subcontractors, suppliers, or vendors based on need-to-know principles;

(3) Implement Control 3.1.12 (monitoring and control remote access sessions) - Require monitoring and controlling of remote access sessions and include mechanisms to audit the sessions and methods.

(4) Audit user privileges on at least an annual basis;

(5) Implement:

i. Control 3.13.11 (FIPS 140-2 validated cryptology or implementation of NSA or NIST approved algorithms (i.e. FIPS 140-2 Annex A: AES or Triple DES) or compensating controls as documented in a SSP and POAM); and,

ii. NIST Cryptographic Algorithm Validation Program (CAVP) (see <https://csrc.nist.gov/projects/cryptographic-algorithm-validation-program>);

(6) Implement Control 3.13.16 (Protect the confidentiality of CUI at rest) or provide a POAM for implementation which shall be evaluated by the Navy for risk acceptance.

(7) Implement Control 3.1.19 (encrypt CUI on mobile devices) or provide a plan of action for implementation which can be evaluated by the Government Program Manager for risk to the program.

3. Cyber Incident Response:

a) The Contractor shall, within fifteen (15) days of discovering the cyber incident (inclusive of the 72-hour reporting period), deliver all data used in performance of the contract that the Contractor determines is impacted by the incident and begin assessment of potential warfighter/program impact.

b) Incident data shall be delivered in accordance with the Department of Defense Cyber Crimes Center (DC3) Instructions for Submitting Media available at http://www.acq.osd.mil/dpap/dars/pgi/docs/Instructions_for_Submitting_Me.... In delivery of the incident data, the Contractor shall, to the extent practical, remove contractor-owned information from Government covered defense information.

c) If the Contractor subsequently identifies any such data not previously delivered to DC3, then the Contractor shall immediately notify the contracting officer in writing and shall deliver the incident data within ten (10) days of identification. In such a case, the Contractor may request a delivery date later than ten (10) days after identification. The contracting officer will approve or disapprove the request after coordination with DC3.

4. Naval Criminal Investigative Service (NCIS) Outreach

The Contractor shall engage with NCIS industry outreach efforts and consider recommendations for hardening of covered contractor information systems affecting DON programs and technologies.

5. NCIS/Industry Monitoring

a) In the event of a cyber incident or at any time the Government has indication of a vulnerability or potential vulnerability, the Contractor shall cooperate with the Naval Criminal Investigative Service (NCIS), which may include cooperation related to: threat indicators; pre-determined incident information derived from the Contractor's infrastructure systems; and the continuous provision of all Contractor, subcontractor or vendor logs that show network activity, including any additional logs the contractor, subcontractor or vendor agrees to initiate as a result of the cyber incident or notice of actual or potential vulnerability.

b) If the Government determines that the collection of all logs does not adequately protect its interests, the Contractor and NCIS will work together to implement additional measures, which may include allowing the installation of an appropriate network device that is owned and maintained by NCIS, on the Contractor's information systems or information technology assets. The specific details (e.g., type of device, type of data gathered, monitoring period) regarding the installation of an NCIS network device shall be the subject of a separate agreement negotiated between NCIS and the Contractor. In the alternative, the Contractor may install network sensor capabilities or a network monitoring service, either of which must be reviewed for acceptability by NCIS. Use of this alternative approach shall also be the subject of a separate agreement negotiated between NCIS and the Contractor.

c) In all cases, the collection or provision of data and any activities associated with this statement of work shall be in accordance with federal, state, and non-US law.

2 DEFINITIONS AND ACRONYMS

2.1 DEFINITIONS

BACKBONE TRANSPORT. The communications infrastructure, outside plant cable and electronic equipment, that provides both the physical and logical connection between communications (core and distribution) nodes.

DEFECTIVE SERVICE. A service output that does not meet the standard of performance described within the Performance Specification.

DELIVERABLE. Anything that can be physically delivered but may include non-manufactured things such as meeting minutes or reports.

KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract. Key Personnel are listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal.

LONG LEAD ITEMS. Long lead Items are defined as those items that take sixty (60) or more calendar days to procure/receive due to complex design, complicated manufacturing process, and/or limited production capacity.

LOCAL TIME. Time at reckoned in a particular region or time zone.

PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

2.2 ACRONYMS

Acronym	Term
A&A	Assessment and Authorization
AC	Alternating Current
ACD	Automatic Call Distribution
ACAS	Assured Compliance Assessment Solutions
AHJ	Authority Having Jurisdiction
ANACI	Access National Agency Check and Inquiries
AO	Authorizing Official
APL	Approved Product List
AS	Assured Services
ASR	Asset Shipping Report
ATC	Authorization to Connect
ATO	Authorization to Operate
ATS	Automatic Transfer Switch
AWG	American Wire Gauge
B/P/C/S	Base/Post/Camps/Stations
BAN	Base Area Network
BET	Building Entrance Terminal
BoL	Bill of Lading
BOM	Bill of Materials

Acronym	Term
BTI	Base Telephone Infrastructure
CAC	Common Access Card
CAT I	Category I
CAT II	Category II
CAT III	Category III
CCB	Configuration Control Board
CEC	Continuing Education Credits
CEDC	Component Enterprise Data Center
CFR	Code of Federal Regulations
CI	Configuration Item
CLIN	Contract Line Item Number
CM	Configuration Management
CMDB	Configuration Management Database
CMP	Configuration Management Plan
CN	Core Node
CND	Computer Network Defense
CONOPS	Concept of Operations
CONUS	Continental United States (excludes Alaska and Hawaii)
COPP	Certified Output Protection Protocol
COR	Contracting Officer Representative
CoS	Class of Service
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-the-Shelf
CPD	Capability Production Document
CRM	Comments Resolution Matrix
CS	Cyber Security
CSM	Cyber Security Manager
CSSA	Customer Service Support Application
CST	Cyber Security Technical
CUI	Controlled Unclassified Information
CWDM	Coarse Wavelength Division Multiplexing
DBID	Defense Biometric Identification
DC	Direct Current
DD1149	Requisition and Invoice Shipping Document (Form DD1149)
DD250	Department of Defense Form 250 (Receiving Report)
DD254	Department of Defense Contract Security Requirement List
DEA	Drug Enforcement Administration
DFARS	Defense Federal Acquisition Regulation Supplement
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DLA-DS	Defense Logistics Agency - Disposition Services
DN	Distribution Node
DoD	Department of Defense
DoDIN	DoD Information Network

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Acronym	Term
DoN	Department of the Navy
DSCP	Differentiated Service Code Points
DSX	Digital Signal Cross-Connect
DWDM	Dense Wavelength Division Multiplexing
E911/NG911	Enhanced 911/Next Generation 911
EDP	Engineering Design Package
EFIST	Engineer, Furnish, Install, Secure, Test
EMT	Electrical Metallic Tubing
EOL	End of Life
EOS	End of Service
EPO	Emergency Power Off
ES&D	Enterprise Staging and Deployment
ESL	Enterprise Software License
ESOH	Environmental, Safety and Occupational Health
ETAS	Emergency Technical Assistance Services
EUB	End-user Building
EULA	End User License Agreement
EEVE	Enterprise Engineering and Verification Environment
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FFP	Firm Fixed Price
FISMA	Federal Information Security Management Act
FOUO	For Official Use Only
FSE	Field Service Engineer
FSO	Facility Security Officers
GAT	Government Acceptance Test
GFI	Government Furnished Information
GFP	Government Furnished Property
HIPAA	Health Insurance Portability and Accountability Act
HMX-1	Marine Headquarters Squadron One
HSPD-12	Homeland Security Presidential Directive-12
HVAC	Heating, Ventilating, and Air Conditioning
HW	Hardware
I3A	Installation Information Infrastructure Architecture
I3MP	Installation Information Infrastructure Modernization Program
IAW	In Accordance With
IBC	International Building Code
INFOCON	Information Operations Conditions
iRAPT	Invoice Receipt Acceptance and Property Transfer
ISN	Installation Service Node
ISP	Inside Plant
IT	Information Technology
ITIL	Information Technology Infrastructure Library
IUID	Item Unique Identification

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Acronym	Term
IVR	Interactive Voice Recognition
GFP	Government Furnished Property
JIE	Joint Information Environment
JITC	Joint Interoperability Test Command
JPAS	Joint Personnel Adjudication System
JTR	Joint Travel Regulation
KSA	Key Systems Attributes
LAN	Local Area Network
LCL	Logistic Lifecycle
LCSP	Life-Cycle Sustainment Plan
LOC	Letter of Clarification
LSC	Local Session Controller
LSTDM	Low Speed Time Division Multiplexing
MCCAST v2	Marine Corps Certification and Accreditation Support Tool
MCEN	Marine Corps Enterprise Network
MCCOG	Marine Corps Cyberspace Operation Group
MCSC	Marine Corps Systems Command
MDF	Main Distribution Frames
MPT	Manpower and Training
MOS	Mean Opinion Score
MOS	Military Occupational Specialty
MOSA	Modular Open Systems Approach
MSDS	Material Safety Data Sheet
MUDG	Military Unique Deployment Guide
NACI	National Agency Check with Written Inquiries
NACLC	National Agency Check with Law and Credit
NCA	National Capitol Region
NCES	Net-Centric Enterprise Services
NCI	Network Communications Infrastructure
NDA	Non-disclosure Agreement
NET	New Equipment Training
NIPRNet	Non-classified Internet Protocol Router Network
NIR	Non-Developmental Item Integration Review
NLT	No Later Than
NMCARS	Navy Marine Corps Acquisition Regulation Supplement
NMCI	Navy and Marine Corps Intranet
NOC	Network Operations Center
NSN	National Stock Number
OCI	Organizational Conflict of Interest
OCONUS	Outside Continental United States (includes Alaska and Hawaii)
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
ON	Optical Network
OSP	Outside Plant

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Acronym	Term
OSPDPR	Outside Plant Design and Performance Requirements
OTS	Optical Transport System
PAC	Post Award Conference
PCA	Physical Configuration Audit
PCR	Project Close-out Review
PDU	Power Distribution Unit
PERSEC Office	Personnel Security Office
PESHE	Programmatic Environment, Safety and Occupational Health, and Evaluation
PIA	Privacy Impact Assessment
PIEA	Proprietary Information Exchange Agreement
PII	Personally Identifiable Information
PM	Project Manager
PMM-172	Program Manager Marine, Customer Support and Strategic Sourcing
PMO	Provost Marshall's Office
PM N&I	Program Manager Network and Infrastructure
POA&M	Plan of Actions and Milestones
POC	Point of Contact
PoP	Period of Performance
PP	Protection Profiles
PPSM	Ports, Protocol, Services, and Management
PRS	Performance Requirements Summary
PSI	Personnel Security Investigation
PSR	Project Status Review
PSS	Pre-award Site Survey
PSTN	Public Switched Telephone Network
PUR	Purchaser User Rights
PUR	Product User Rights
QA	Quality Assurance
QAP	Quality Assurance Program
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QoS	Quality of Service
RMA	Return Material Authorization
RMF	Risk Management Framework
ROADM	Reconfigurable Optical Add/Drop Multiplexers
RTM	Requirements Traceability Matrix
RTS	Real Time Service
RU	Rack Units
S-PR	Secret Periodic Review
SAAR	System Authorization Access Request
SAR	Safety Assessment Report
SAT	System Acceptance Test

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Acronym	Term
SDN	Software Defined Network
SEP	System Engineering Plan
SI	System Integrator
SIP	Session Initiation Protocol
SIPRNet	Secure Internet Protocol Router Network
SLA	Software License Agreement
SLIN	Sub-Line Item Number
SON	Statement of Need
SONET	Synchronous Optical Network
SPPN	Special Purpose Processing Node
SBPR	SSBI Periodic Reinvestigation
SSBI	Single Scope Background Investigation
SPPR	SSBI Phased Periodic Reinvestigation
SRG	Security Requirement Guides
SSR	Site Specific Requirements
STIG	Security Technical Information Guide
SURA	Software User Rights Agreement
SW	Software
T&E	Test and Evaluation
TAS	Technical Assistance Services
TCCB	Team Configuration Control Board
TDM	Time Division Multiplexing
TDP	Technical Data Package
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TIM	Technical Interchange Meeting
TMGB	Telecommunications Main Grounding Busbar
TMS	Telephony Management Systems
TOS	Terms of Service
TPN	Tactical Processing Node
TRDP	Technical Review Data Package
TPTCTS	Test Procedures, Test Cases, Test Scripts
TRR	Test Readiness Review
TSO	Technical Support Officer
TTP	Tactics, Techniques, and Procedures
UC	Unified Communications
UCR	Unified Capabilities Requirements
UFC	Unified Facilities Criteria
UID	Unique Identification
UII	Unique Item Identifier
UPS	Uninterrupted Power Supply
VLAN	Virtual Local Area Network
VLRA	Valve Regulated Lead Acid
VoIP	Voice over Internet Protocol

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Acronym	Term
VRF	Virtual Routing and Forwarding
VSS	Verification Site Survey
WAN	Wide Area Network
WAP	Wireless Access Point
WAWF	Wide Area Work Flow
WLAN	Wireless Local Area Network
WSS	Wave Selectable Switch
XMPP	Extensible Messaging and Presence Protocol

3 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

The Government will not be providing any Government furnished property for this contract.

4 CONTRACTOR FURNISHED ITEMS AND RESPONSIBILITIES

4.1 GENERAL

The contractor shall furnish all supplies, equipment, facilities, and services required to perform work under this contract that are not identified in Section 3 of this PWS.

Accountability for all hardware and software is the sole responsibility of the contractor until such time as the Government has performed the final acceptance. All Bills of Ladings (BoLs) and shipping documents shall be provided to the Program Office upon receipt of the shipments. The contractor shall provide the Government with an initial Bill of Materials (BOM) and Configuration Management Database (CMDB) at the Technical Interchange Meeting (TIM). The contractor shall provide a final Material and Equipment List or BOM to the Government prior to the start of Cut-Over to ensure proper and accurate property transfer. The Material and Equipment List/BOM will include, at a minimum, the following fields: name, part number, item description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

The contractor shall coordinate all shipments with the Lead Logistician aboard N&I. The contractor shall mark the equipment in accordance with MIL-STD 130 and provide the Government with a completed Asset Shipping Report (ASR) and Form DD1149 for all new equipment delivered under this contract. The DD1149 Form shall contain, at a minimum, an item description, serial number, part number, unit of issue, quantity received, unit price, and total cost. The contractor shall coordinate a turnover schedule with the gaining command and perform a serialized “item by item” inventory with the Supply Officer, or designated representative, and obtain a signature for the delivery of the equipment. As part of the equipment delivery, the contractor shall provide the final Material and Equipment List.

4.2 MATERIALS EQUIPMENT

The contractor shall provide and deploy all materials and equipment required to transport, install, configure, provision, and test the systems and subsystems delivered under the task and delivery orders in accordance with established industry practices and Original Equipment Manufacturer’s (OEMs) methodologies, procedures, and sustainment support activities.

5 SPECIFIC TASKS

5.1 ENGINEER, FURNISH, INSTALL, SECURE, TEST

The contractor shall be responsible to EFIST and make operational a Regional UC System and a Base Area Network (BAN). Each system shall be completely functional with the required programming, interfaces, hardware, software, software licenses, ancillary equipment, parts, databases, and material for all identified users, services, and requirements. The modernized systems and associated sub-systems shall retain all functionality of the existing systems and provide additional functionality to meet the requirements specified in the site-specific requirements specification. To ensure compliance with all requirements, the contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all identified requirements to the Performance Requirements Summary (PRS). The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, and demonstration) to validate the contractor's proposed system design for Government acceptance. All proposed systems configurations will be baselined in accordance with PM N&I, Configuration Management Plan (CMP). The contractor shall repurpose/reutilize existing equipment to the maximum extent practical based on their solution. In addition, the contractor shall EFIST and make operational any ancillary equipment that is required to support this effort such as grounding, firmware, interfaces, patch panels, applications, and similar equipment necessary to deliver a complete and useable solution.

The contractor shall use, to the greatest extent possible, enterprise software licenses for Commercial Off-the-Shelf (COTS) software products available from the Department of the Navy (DoN) Enterprise Software License (ESL) agreements for any software required to support their proposed solution. The DoN ESL Team is aligned under Program Manager, Customer Support and Strategic Sourcing (PMM-172) as a joint Navy and Marine Corps strategic sourcing effort to consolidate, centralize, and streamline the acquisition and management of DoN ESL Agreements. Enterprise software Licenses agreements are available for the following applications: Microsoft, Oracle, Avaya, Symantec/Veritas, ActivIdentity, CISCO SMARTnet, VWware, Solarwinds, and Red Hat. The contractor will coordinate the use of available enterprise software license agreements with the NCI Program Office after contract award.

The contractor shall be responsible for replacing and correcting any hardware, software, applications, data, configurations, material, or services omitted and/or installed in contractor error without any extra expense or delay to the Government. The contractor shall not be responsible for replacing or correcting existing Government property, software, or facility problems, outside the scope of this PWS.

5.1.1 REGIONAL UNIFIED COMMUNICATIONS

The Regional UC solution shall provide business voice capability to each end-user in those locations where the solution will be deployed. MCB Quantico shall include all Non-classified Internet Protocol Router Network (NIPRNet) users on MCB Quantico, users at Indian Head, MD, Tech Parkway, Quantico Corporate Center, and Barrett Heights in Stafford, VA,. . The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911)

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services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

5.1.2 BASE AREA NETWORK

The BAN consists of a Distribution Layer and an Access Layer. It shall provide for the transportation of voice, video, and data on all locations where the solution will be deployed. There are 8 Area Distribution Nodes (ADNs) located on MCB Quantico; Bldgs. (1999, 24204, 3255, 3300, 2076, 26100, 27282, and Russell Knox). These nodes shall be connected with a Dense Wavelength Division Multiplexing (DWDM) system with a Reconfigurable Optical Add/Drop Multiplexer (ROADM) located at each node. All circuits traversing the installation shall use the DWDM. Circuits shall be transitioned off the SONET network. The BAN shall satisfy the requirements of Section 8. The BAN has no external connectivity but gets core connectivity through the Core Nodes (CNs) and the Installation Gateway.

DWDM technology will provide backbone transport connectivity at MCB Quantico. SONET will be removed.

The Contractor shall provide a second design with an “All PON” solution in accordance with section 8 and par 8.3.2.2.

5.1.3 FACILITY/NODE PREPARATIONS

5.1.3.1 POWER SYSTEMS

The Contractor shall not be required to include power as a feature of their solution, but will identify any necessary power requirements during the VSS in a report to the Government.

5.1.3.2 AUXILIARY INFRASTRUCTURE

Auxiliary Infrastructure is comprised of the equipment and components that supplement the primary systems and subsystems provided in the proposed solution. This equipment consists primarily of equipment racks/cabinets, ladder rack, cable tray, re-enforcing structures, that house the electronic components installed as a part of the overall modernization effort at each DN. All requirements for auxiliary infrastructure will be verified during the VSS.

5.2 CYBERSECURITY

The contractor, in coordination with the NCI Project Manager and NCI Cybersecurity Representative, shall perform all recommended Cybersecurity configuration settings, programming, and configurations of components being provided to ensure compliance with all cyber requirements. At a minimum, the contractor shall provide the following items for Government review: System Configuration Hardware/Software Baseline, Network/Security configurations, Ports, Protocol, Services, and Management (PPSM), system and equipment warranties, software license agreements, software upgrades, and all documentation required to support the Assessment and Authorization (A&A) and Configuration Control Board (CCB) processes. Refer to the Table 2 - Contract Deliverables Matrix for specific Cybersecurity requirements. All products must be current on the DoDIN Approved Product List (APL). The system shall be designed and implemented with hardware/software that is

compliant with and fielded in accordance with the Joint Interoperability Test Command (JITC) approved configuration and Military Unique Deployment Guide (MUDG).

5.2.1 JOINT INTEROPERABILITY TEST COMMAND CERTIFICATION

All proposed UC system hardware and software shall have received JITC certification in accordance with the latest version of the DoDI 8100.4, Unified Capabilities before the system can connect to the DoD Information Network (DoDIN). All proposed system hardware and software shall have a valid JITC certification by the Test Readiness Review (TRR). Connection to the DoDIN will not be authorized until certification is updated and the system is fielded in accordance with the certification letter and applicable JITC deployment guides.

Non-certified or expiring JITC certified systems may be proposed provided a road map and Plan of Actions and Milestones (POA&M) is included in the offeror's proposal indicating that JITC certification will be achieved prior to TRR. Additionally, the offeror shall provide a mitigation plan in the event the proposed system does not achieve the required JITC certifications by TRR.

5.2.2 RISK MANAGEMENT FRAMEWORK FOR DoD INFORMATION TECHNOLOGY

Before the proposed hardware and software solution can be connected to the DoDIN via the MCEN, all system hardware, software, and ancillary equipment shall be Cybersecurity compliant IAW the latest version of the technical controls mandated by *DoDI 8510.01, Risk Management Framework (RMF) for DoD Information Technology (IT)*. In addition, the contractor shall assist the Government by providing, developing, and submitting any necessary system documentation, settings, specifications, and hardening (application of Security Technical Information Guides (STIG), vulnerability scans, testing and installing patches, and vulnerability mitigation) required to update the Government Assessment and Authorization (A&A) package and entry into the Marine Corps Certification and Accreditation Support Tool (MCCAST v2). The delivered system will be incorporated to the BAN/LAN Site Accreditation following installation.

5.2.3 SECURITY AND TECHNICAL IMPLEMENTATION GUIDES, SECURITY REQUIREMENT GUIDES, AND ASSURED COMPLIANCE ASSESSMENT SOLUTIONS SCANS

The Contactor shall apply all applicable Defense Information Systems Agency (DISA) STIGs and Security Requirement Guides (SRGs) to all applicable hardware and software. This shall require the contractor to perform system vulnerability scans, system setting adjustments, software updates/patches, or system hardware/software reconfigurations and hardening. The contractor shall provide applicable STIG checklists; vulnerability scans with the DoD-approved Assured Compliance Assessment Solutions (ACAS) scanning tool, and a POA&M with mitigations and estimated completion dates for all open Cybersecurity findings. ACAS Vulnerability findings are defined as Critical/High = Category (CAT) I, Medium = CAT II, and Low = CAT III. STIG findings are defined as follows: CAT I, CAT II, and CAT III. All CAT I vulnerabilities shall be remediated or mitigated. All CAT II/III vulnerabilities must be remediated if a patch is available and STIG/SRG settings are configured without affecting system functionality. If a patch/STIG/SRG setting is not available or affects operational functionality, an acceptable mitigation (i.e., current processes or measures that reduce vulnerability exposure) must be provided in the POA&M with recommended completion dates.

All ACAS scans will be accomplished using the DISA Field Security Operations (FSO) scan policy Government Furnished Information (GFI) and latest ACAS plugin definitions available on the DoD Patch repository at the time scans are conducted. Contractor shall ensure all ACAS scans are completed with proper credentials and IAW the latest policies and guidelines as defined by DISA and/or the U.S. Marine Corps. All automated and manual STIG/SRG settings shall be applied.

5.3 CONTRACT PROJECT PHASES

The accepted Request for Proposal (RFP) design constitutes the Conceptual Design baseline and is the starting point for every contract project.

This section identifies the Project Phases and Project Milestones/Reviews associated with this contract. These milestones include, but are not limited to, all the system technical reviews and audits ensuring the engineered design satisfies the PRS outlined in Part 8 of the PWS, Site Specific Requirements, and NCI Systems Engineering Plan (SEP). This timeline represents “Tailored Conformance” to meet a Systems Engineering Approach as directed by DoD guidance. The contractor’s Contract Schedule shall include, at a minimum, all of the events identified in this section, beginning with Site Task Award, to mitigate potential adverse impacts to cost, performance, and schedule.

The NCI Contract Notional Timeline depicted in Figure 1 identifies the sequence of events for the contract.

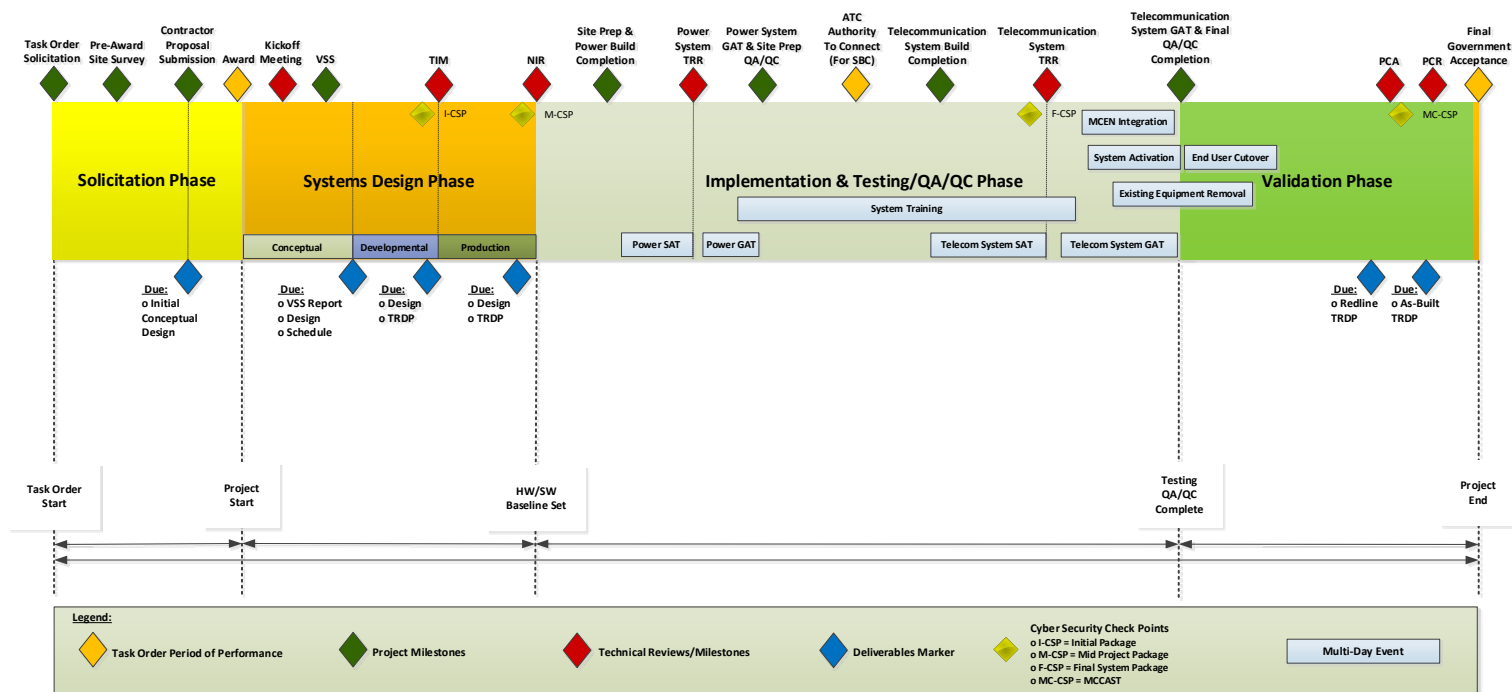


Figure 1 – Notional Timeline

5.3.1 PROJECT MILESTONES AND EVENTS

The Notional Timeline depicted in Figure 1 coincides with the expected Contract events beginning with the Contract Solicitation. Mapping these design stages to NCI programmatic, Implementation Phases are as follows.

5.3.1.1 CONTRACTOR PROPOSAL SUBMISSION

The contractor shall submit a proposals within 30 calendar days from receiving the Request for Proposal from the Government. The proposal shall contain the contractor's proposed conceptual design and architecture, pricing, materials and equipment list, project plan, and project timeline including all the events identified in the notional timeline (durations, dates, and the proposed period of performance).

5.3.1.2 SYSTEM DESIGN PHASE

The System Design Phase is initiated with the Award, signifying the start of the period of performance. Subsequent to the Award, the Government shall hold a Post Award Kick-off meeting. This Phase shall also include a contractor Verification Site Survey (VSS) to validate assumptions made on the information provided as part of the PWS. Throughout the duration of this Phase, the contractor shall deliver a detail system design and Technical Data Package (TDP) to be reviewed at designated technical reviews.

The contractor shall also deliver Cybersecurity documentation prior to the associated technical review events IAW the timelines identified in Table 2 - Contract Deliverables Matrix.

Table 2 – Contract Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Project Schedule	Proposed: fifteen (15) Calendar Days after the start of the VSS Monthly: NLT the last day of every month (Ad hoc Project Schedule Reports may be Requested)	MS Project 2016 and PDF
2	Conceptual (Proposed) Design	Revised: NLT 15 (15) calendar days after the VSS	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF
3	Verification Site Survey Report	NLT fifteen (15) calendar days after the VSS.	VSS Report: Contractor Format (PDF or Microsoft Office Word 2016 or later)
4	Technical Data Package	Developmental: NLT fifteen (15) calendar days prior to the TIM. Production: NLT fifteen (15) calendar days prior to the NIR. Red Line: NLT the completion of Cutover. As-Built: NLT fifteen (15) calendar days prior to the PCR.	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF M&E List: Microsoft Office Excel 2016 or later HW/SW Baseline: Microsoft Office Excel 2016 or later
5	RTM	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
6	SAT Plan	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
7	ACAS Scans Schedule	Initial: NLT fifteen (15) calendar days prior to the TIM. Final: NLT fifteen (15) calendar days prior to the NIR.	Contractor Format (PDF and Microsoft Office Project 2016 or later)
8	Cyber Security POA&M	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the Telecommunications Systems TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
9	Technical Controls	Initial: NLT fifteen (15) calendar days prior to the TIM.	Contractor Format (PDF or Microsoft Office Excel 2016 or later)

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Item Number	Item Title	Due	Deliverable Format
		Revised: NLT fifteen (15) calendar days prior to the NIR.	
10	Safety Assessment Report (SAR)	NLT fifteen (15) calendar days prior to the NIR.	Contractor provided format (PDF and Microsoft Office Excel 2016 or later)
11	Site Prep TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
12	Telecommunications TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
13	Cutover Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
14	IUID Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
15	STIG/SRG Check List	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	Native format
16	ACAS Vulnerability Scans	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	.nessus File format
18	Completed Telecommunications System TPTCTS	NLT ten (10) calendar days after the Telecommunications System GAT.	Government provided format (Microsoft Office Word 2016 and PDF)
19	Warranty Procedure Guide	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
20	Installations, Operations and Maintenance, and SW User Manuals	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
21	MCCAST Import Template	Current: NLT fourteen (14) prior to the PCR	Native format
22	Asset Shipping Report	An ASR shall be provided with each equipment shipment to ES&D.	Government-provided Format (Microsoft Office Excel 2016 or later)

The System Design Phase consists of three design levels: Conceptual, Developmental, and Production. (Reference Section 5.7.1.1 – Product Drawings and Associated Lists)

Conceptual Design provides the framework for the allocated baseline by defining the system and subsystem architectures and is delivered or established at proposal. The design shall include hardware and software lists, depiction of critical support system interfaces and any underlying services architectures as well as identification of all system CNs, DNs, and EUBs to ensure that the proposed system has an expectation of being operational, feasible, and satisfies the site-specific requirements.

Developmental Design describes the integration approach and is used to evaluate and validate that the design meets the required performance. This information is used to produce materiel for test and for the analytical evaluation of the inherent ability of the design approach to attain the required performance. This design level shall include but not limited to any updates associated with the Conceptual Design, all impacted building floor plans (both top and elevation views), wire, fiber, power, and grounding routing details, all rack/cabinet and ladder tray drawings. These design components shall be delivered prior to the Technical Interchange Meeting (TIM) for technical review and adjudication.

Production Design is a detailed and complete design that captures any updates to the Conceptual and Developmental Designs and shall include but not limited to all components, recommended spares, and applicable repair parts. The production design shall also include all applicable detailed wiring and cabling schematics. These design components shall be delivered prior to the Non-Developmental Item Integration Review (NIR) for technical review and adjudication.

5.3.1.2.1 AWARD KICK-OFF MEETING

The Kick-off meeting shall be a review and discussion of the documents provided in the contractor proposal submission and provide a forum for both the Government and contractor to reach consensus on all project implementation expectations. Government will provide applicable deliverable templates to contractor. The contractor shall deliver their proposed project schedule at the kickoff meeting.

5.3.1.2.2 VERIFICATION SITE SURVEY

The contractor shall proceed to the place of performance to conduct a Verification Site Survey (VSS) within twenty (20) calendar days of Contract Award. The purpose of the VSS is to provide the contractor(s) an opportunity to validate assumptions made on the site information provided in the PWS. Coordination of the VSS visitation shall be facilitated by the NCI Project Manager, the contractor, and the site TSO. The VSS Report, Revised Conceptual (Proposed) Design, and the Baseline Project Schedule shall be provided to the Government IAW the criteria and timeline identified in Table 2 - Contract Deliverables Matrix. The VSS Report shall provide an accurate description of the existing conditions and identify any potential discrepancies or changes to the proposed design. Upon Government review and acceptance, authority to proceed to Developmental Design shall be granted and the Baseline Project Schedule established.

5.3.1.2.3 TECHINICAL INTERCHANGE MEETING

The TIM is an informal meeting that fosters the exchange of ideas through open discussion and participation. The purpose of the TIM is to provide a forum for problem solving and information sharing between Government and contractor personnel that encourages cooperation and fosters

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collaboration in resolving technical and engineering deficiencies and/or discrepancies. TIMs are to be conducted when necessary as determined by the COR/Project Manager. The contractor shall conduct at least one on-site TIM at the place of performance to adjudicate the results of the Government's review of the Developmental Design.

5.3.1.2.4 NON-DEVELOPMENTAL ITEM INTEGRATION REVIEW

An NIR is a multi-disciplined product and process assessment to ensure the system under review can proceed into the Implementation & Testing and Quality Assurance (QA)/Quality Control (QC) Phase. This review assesses the TDP artifacts and reviews the Production Design. The contractor shall participate in a Government lead NIR IAW the NCI SEP. The NIR is a formal milestone review requiring Government acceptance. Successful completion of the NIR will establish the product baseline. The contractor shall demonstrate that the Detailed Design satisfies the specifications identified in the Contract Solicitation and the Site Specific Requirements (SSR). The contractor shall present a test and system cutover for the purpose of performing design verification and validation. The contractor shall also prepare and provide a Safety Assessment Report (SAR). The SAR shall identify the contractor's mitigation of any safety and environmental hazards identified in the NCI Programmatic Environment, Safety and Occupational Health, and Evaluation (PESHE).

5.3.1.3 IMPLEMENTATION, TESTING, AND QA/QC PHASE

The Implementation, Testing, and QA/QC Phase shall begin with the acceptance of all deliverables associated with the NIR milestone. The contractor shall execute the system build to the accepted Production Design, beginning with Site Preparation and Power System installations, followed by installation and integration of the telecommunications systems components. The contractor shall provide continuous oversight of all subordinate contractors in accordance with all aspects of program management.

5.3.1.3.1 SITE PREPARATION BUILD COMPLETION

This milestone incorporates the procurement and installation of all required system infrastructure, including, but not limited to, system racks, cabinets, and ladder racking. Upon completion of this milestone, the contractor shall ensure the installation complies with all local and regulatory requirements.

5.3.1.3.2 SYSTEMS ACCEPTANCE TEST AND GOVERNMENT ACCEPTANCE TEST

Test and Evaluation (T&E) is an integral part of the systems engineering process. System/Subsystem Testing demonstrates the delivered solution fulfills the requirements and specifications of the PWS. Testing shall be performed in two phases, the System Acceptance Test (SAT) and the Government Acceptance Test (GAT). Separate SAT/GAT events will be performed for Telecommunications systems. SAT shall be contractor-performed testing that occurs prior to TRR. The Government will observe the SAT.

It is expected that the contractor shall install and test system/subsystem components without connection to the DoDIN/MCEN. As a result, the contractor may not be able to complete all required system and sub-system testing during SAT. It is expected that systems and subsystems requiring MCEN connection are hardened. The GAT leverages the final SAT documents provided by the SI to determine testing that demonstrates system-wide functionality of hardened devices. The government

will attend any contractor(s) scheduled SAT testing events to ensure test data integrity. GAT will be the final test event and all connections and interfaces shall be established during this time.

5.3.1.3.3 TEST READINESS REVIEW

The TRR is a significant multi-disciplined technical review designed to ensure the system and/or subsystem under review is ready for Government testing and functions as the transition from SAT to GAT. The TRR assesses test objectives, test methods and procedures, test scope, and safety to confirm required test resources have been properly identified, made available, and coordinated to support planned tests. The TRR verifies the traceability of planned tests through the use of the RTM. It determines the completeness of test procedures and their compliance with test plan descriptions. The TRR also assesses the system under review for development maturity, cost/schedule effectiveness, and risk to determine readiness to proceed to formal testing.

5.3.1.4 VALIDATION PHASE

The Implementation Phase shall transition into the Validation Phase upon successful completion of the Telecommunications System GAT and the final QA/QC inspection.

5.3.1.4.1 CUTOVER

Cutover is the process of migrating existing circuits and end-user services (voice and data) from legacy systems to the newly installed contractor-provided solution. The contractor shall develop a detailed Cutover Plan to support cutover. The Cutover Plan shall provide the approach, schedule, required Government resources, system outages, and fall back plan.

The contractor shall be responsible for performing a flash cutover, unless deemed impractical due to technical, logistical, or base operational constraints, of all services identified in this document. This shall include capturing and validating existing system's database and subscriber information, transferring information, configuring, and deploying the new system to the end-user device. This information includes, but is not limited to, dial plans, subscriber features and capabilities, call lists, settings and configurations. The cutover shall also include hardware and patching of existing subscribers and services inside the closets and at the end user locations. Cutover methods utilized shall minimize service-affecting outages and be described in detail in the Cutover Plan.

The contractor shall conduct service-affecting cutovers of systems outside normal duty hours with minimal downtime as designated by the TSO. During system cutover, the contractor shall establish, staff, manage and support all on-site help desk functions and responsibilities to include customer calls, creating trouble tickets and logs, tracking reports for active and closed tickets, answering subscriber questions and correcting deficiencies, and coordinating with the TSO to prioritize trouble tickets. An electronic and paper copy of the Trouble Ticket Log shall be maintained on-site for Government inspection during cutover. The Trouble Ticket Log shall be turned over to the Government after resolution and closure of all Trouble Tickets directly attributable to the contractor's solution.

5.3.1.4.2 SYSTEM OUTAGES

Any work requiring system downtime shall occur during off-duty/weekend hours, be kept to a minimum, and not occur without specific acceptance from NCI Project Manager and the site TSO. The contractor shall submit a system recovery/fallback plan for review and acceptance for all scheduled outage. The system recovery/fallback plan shall be provided as part of the Cutover Plan.

5.3.1.4.3 REMOVAL OF EXISTING EQUIPMENT

Upon Government approval, the contractor shall decommission, disconnect, de-install, dismantle, and remove all displaced core switching equipment. . The contractor shall remove any system anchors, brackets, and racks protruding from the floors and/or walls. The contractor shall ensure that no active service is disrupted during the switch or equipment removal and shall be liable for any costs incurred by the Government to restore disrupted service. All replaced core switching equipment shall be removed and properly disposed of by the contractor.

Existing equipment identify by the Government for reuse and redistribution will be turned over to the Program Office upon removal. Disposal of all equipment shall be coordinated through the TSO and the Installation's Defense Logistics Agency - Disposition Services (DLA-DS) to ensure compliance with Government disposal procedures. The contractor shall provide the Government with a document identifying all replaced core switching equipment. At a minimum, the following fields shall be included: name, part number, description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

5.3.1.4.4 PHYSICAL CONFIGURATION AUDIT

The Physical Configuration Audit (PCA) shall be conducted to determine conformance of the as built configuration to the product baseline with the TDP. The PCA shall be a joint audit conducted by the contractor and Government. The results of the audit shall be documented by the contractor and adjudicated by the Government before Project Closeout Review (PCR) for inclusion in the As-built TDP.

5.3.1.4.5 PROJECT CLOSEOUT REVIEW

The Project Closeout Review (PCR) shall be conducted to verify all project requirements have been satisfied, all deliverables have been submitted to the Government, and all Government administrative actions have been completed.

5.4 PROJECT ADMINISTRATION/MANAGEMENT

5.4.1 PROJECT PLAN

The contractor shall establish, deliver, and ensure that a Project Plan remains in effect throughout the project period of performance. At a minimum, the Project Plan shall focus on and align with the Project Schedule. The Project Plan should address areas such as Safety, Configuration Management, and Risk Management. The Project Plan shall clearly demonstrate an understanding of the project timeline and associated milestones for the project and how the contractor plans to satisfy the requirements of the PWS. The Project Plan shall address a management approach and highlight actions that will be taken to mitigate risk to cost, schedule, and performance, highlight any possible positive or negative impacts, and provide details on the process to deal with unforeseen site conditions, schedule slips, or other problems of program risks. The Plan shall describe the contractor's approach to Resource Management and shall identify the project team.

5.4.2 PROJECT SCHEDULE

The contractor shall deliver and maintain an accurate and up-to-date project schedule that accurately reflects the current status of the project progress and resources. To ensure proper management and accuracy of the project schedule, the contractor shall coordinate and consult with relevant stakeholders throughout the course of the project. The project schedule shall include all significant events, detailing each sequence of work that should be completed, identify major milestones and tasks from start to completion of the project, as well as include all critical path events. At a minimum, the project schedule shall identify the following columns: Start, Finish, Baseline Start, Baseline Finish, Duration, and Percent Complete for each task, to include the associated task paths (successors, predecessors, etc.). The contractor shall deliver the proposed Project Schedule within twenty (20) calendar days after the start of the VSS. The Government will then have fifteen (15) calendar days to review and coordinate with the contractor any necessary corrections and updates in order to establish a baseline schedule. The accepted project schedule will then become the baseline and will not change throughout the duration of the project, except in the event of contract modifications that impact the project schedule (scope increase/decrease, etc.).

The contractor shall reference and adhere to the guidance in the NCI Schedule Management Plan.

5.4.3 MEETINGS

The contractor shall plan, host, attend, coordinate, support, and conduct meetings, formal reviews, conferences, and audits required during the period of performance of this contract. Meetings shall be conducted at either Government or contractor facilities, or via conference call/video teleconference. The contractor shall prepare agendas and meeting presentation materials for each meeting. The contractor shall also provide minutes and reports following each meeting. The minutes must include a summary of all action items, dates assigned, responsible parties, and estimated completion dates of testing.

5.4.3.1 PROJECT STATUS REVIEW MEETINGS

The contractor shall plan, host, coordinate, and conduct a Project Status Review (PSR) each week throughout the period of performance for the purpose of reviewing and updating the Government on the current status of the project. To support the administration and management of the Weekly PSR, the contractor will provide a Meeting Agenda, Action Items List, and Project Schedule two (2)

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calendar days prior to the execution of the Weekly PSR. In addition, the contractor shall provide meeting minutes NLT two (2) calendar days after the PSR.

The Meeting Agenda will address, at a minimum, the following areas of concern:

1. Introductions/Documentation of Attendance
2. Summary of Week's Activities
 - a. Issues encountered and resolutions taken to address
 - b. Issues encountered and still unresolved
 - c. Completed activities for the week
3. Activities Planned for the following week
4. Overall Project Status Review
5. Action Item/Register Review
6. Review Deliverables Status
7. Review any changes to the TDP and Design Drawings (Redline Drawings)
8. Materials Status
 - a. Discuss preformed Quality Reviews and the results
9. Coordination Resolution of any identified deficiencies
10. Discussion of Upcoming Significant Events; possible issues and mitigations (as needed)
11. Project Schedule Review relative to the Baseline Project Schedule for thirty (30) calendar days before and thirty (30) calendar days after the PSR
12. Coordinate any staffing updates to the project team(s)
13. Additional Questions/Open Forum
14. Meeting Summary/Assigned Action Item Review.

An Action Item List shall be maintained and delivered as part of the contractor's weekly progress. Closed action items shall only be presented one time. The Action Item List shall contain the following tabs at a minimum:

1. Meeting Attendees
2. General
3. Site Prep
4. Data
5. Voice

6. Schedule Review
7. Deliverable Review
8. Closed
9. Risk Log
10. Personnel
11. Shipping
12. Damage Incident Log
13. Stakeholder Contact Info
14. Risks Matrix

5.4.4 QUALITY CONTROL

The contractor shall develop and maintain an effective quality control program to ensure services are performed in accordance with this PWS. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The contractor's quality control program is the means by which he assures himself that his work complies with the requirement of the contract. The contractor shall provide a written Quality Control Plan (QCP) with the IDIQ proposal. Any changes arising from this effort will be incorporated into any subsequent award. Post-award changes to the QCP shall be submitted to the Contracting Officer and COR within five (5) calendar days of the affected change. The Contracting Officer will provide written acceptance of any proposed changes after delivery of the revised QCP. In addition, the contractor shall incorporate the following minimum elements into the QCP.

- Definition of contractor quality control management lines of responsibility
- Quality Control Management System Process
- Internal Design Review/Change Control Process
- Internal Document Control Process
- Process for Testing
- Process for the execution of Corrective Actions
- Process for maintaining Quality Assurance records throughout the project lifecycle
- Process for performing random internal Quality Control audits.

5.4.4.1 QUALITY ASSURANCE

The Government will evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP). This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable quality levels. The contractor shall provide an assessment detailing their conformance to both the technical and programmatic management of the contract.

5.5 LOGISTICS SUPPORT

The contractor shall provide dedicated logistic support to plan and coordinate efforts that integrate logistics and life cycle support considerations into the design of the system. The effort shall be conducted as an integral part of the development, integration, and test processes to define the range and depth of the required support, to develop supportability data products, and to address all applicable elements of logistics.

5.5.1 LOGISTICS MANAGEMENT

A joint Government/contractor coordination shall be established to monitor the status of the program implementation. The coordination will be conducted to address logistic matters, schedules, warranty, and PWS performance. The Government will oversee and monitor the contractor's implementation of applicable logistics elements during the project period of performance and throughout the warranty period. The Government has the right to request status of what's in place in and in storage at any time during the contract.

5.5.2 ITEM UNIQUE IDENTIFICATION

The contractor will develop an Item Unique Identification (IUID) Plan and implement specific IUID markings, in accordance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.211-7003, DFARS 252.245-7001, SECNAVINST 4440.34, MIL-STD-130N to include recommendations for marking of spare assemblies and subassemblies, components, and parts below \$5,000 and highly pilferable to include recommendations for marking of spare assemblies, subassemblies, components, and parts below \$5,000. The Government shall make the final determination for IUID marking of items below \$5,000. All spare parts, secondary repairable items, and consumables that exceed \$5,000 and Government selected items under \$5,000 will be marked with the item IUID prior to delivery to the Government. The IUID marking shall be incorporated into existing data plates when possible. Bar coding and the two dimensional IUID data matrix shall be machine-readable with common optical scanning devices and be accompanied by the corresponding human readable markings when practical. All 2D data labels shall be permanently affixed and shall ensure its readability during normal operational use. The plan shall also describe the marking process and identify marking locations for each item identified. The contractor will identify the location of approved IUID markings within all drawings.

The contractor will load all IUID data into the DoD IUID Registry NLT fifteen (15) calendar days after completion of the PCA. Additionally, the contractor shall load all serial items to include IUID data into invoice Receipt Acceptance and Property Transfer (iRAPT) formally known as Wide Area Work Flow (WAWF). The contractor will provide an IUID Marking Activity and Verification Report for each system and spares delivered to the Government. The IUID Marking Activity and Verification Report will include a listing of all IUID assigned numbers by Contract Line Item Number (CLIN), Sub-Line Item Number (SLIN), or Exhibit Item and contain the model number, part number, serial number (if applicable), and parent/child relationship.

5.5.3 PARENT END ITEM DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI data plate. The Parent End Item 2D matrix shall contain human and

machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. The minimum data plate information for NCI Parent End Items are as follows:

1. Nomenclature
2. NSN (if available)
3. Design Activity: (MFR ID Cage Code)
4. Serial Number
5. Government Ownership Designation: U.S. Property
6. Contract Number
7. Two-dimensional IUID data matrix
8. Unique Item Identifier (UII).

5.5.3.1 SUB ASSEMBLY DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI sub-assembly data plate. The Sub-Assembly 2D matrix shall contain human and machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. All applications must be permanently affixed, as well as human and machine-readable when the necessary space is available. For sub-assembly items that do not currently utilize a data plate, the contractor will refer to MIL-STD-130N to develop best business practices for a display of the data elements below. The IUID data plates shall display the following minimum information:

1. NSN (if available)
2. Part Number
3. Serial Number
4. Manufacturer Cage Code
5. 2-dimensional IUID data matrix
6. Unique Item Identifier.

5.5.4 WARRANTY

The contractor shall provide a full, unlimited one-year warranty for all contractor provided hardware/software, materials, and workmanship. The warranty shall begin immediately upon Final Government Acceptance of all items delivered under this contract.

The contractor shall establish and maintain a warranty performance system that identifies and documents all items to be warranted under this contract. Each item warranted shall be indexed and identified by serial number, model number, part number, Unique Identification (UID), warranty period, Original Equipment Manufacturer (OEM), and date of acceptance by the Government. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each item shall be provided to the Government in the form of a Warranty Procedures Guide and shall be maintained by the contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and made available for Government review upon request or during scheduled meetings and/or reviews throughout the life of all warranted items used in all production phases of the NCI Program.

All costs for shipping and handling for warranted items from and to the field activity are the responsibility of the contractor. The warranty period will cover all hardware, software/firmware, materials, installation services, applicable Software (SW)/Cyber Security (CS) updates, and workmanship provided for the overall system design solution. Hardware/Equipment warranty will include repair and return services for all hardware/equipment replacement that will be configured with software/firmware and ready to install upon receipt.

5.5.5 ENVIRONMENTAL SAFETY AND HEALTH

5.5.5.1 SYSTEMS SAFETY

The contractor shall identify all hazardous material associated to the newly installed equipment and deliver the applicable Material Safety Data Sheet (MSDS) to the Government. The contractor shall identify and evaluate safety and health hazards and define risk levels that manage the probability and severity of all hazards associated with development, use, and disposal of the system in accordance with MIL-STD-882D. Residual risks will be evaluated by the Government in accordance with Tables A-I through A-IV of MIL-STD-882D and reviewed for acceptance or further risk mitigation action IAW the PESHE.

5.6 GREY MARKET ITEMS, LICENSE TRANSFERABILITY, AND END USER TERMS AND CONDITIONS

In order to minimize the risk of the Government purchasing counterfeit products or unauthorized secondary market equipment, which would not be supported by the OEM, and to ensure that the Government purchases only equipment that is genuine (i.e., not counterfeit), authorized (e.g., not gray market, includes appropriate licenses, etc.), and supported (e.g., warranty and support services) by the OEM, when it submitted its proposal, the contractor, for:

Hardware: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of the proposal and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor warrants that all products provided under this contract are new. By submitting any proposal under this contract, contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of contract award. Contractor agrees that it will provide a list of serial numbers for any hardware provided or installed. Failure to provide this information may result in delays to acceptance and payment. The Government will use this information to confirm with the Manufacturer or OEM that the hardware is (1) genuine (not counterfeit) and (2) authorized hardware that has been sourced and provided in accordance with the Manufacturer's applicable policies (e.g., not gray market or diverted). If the Manufacturer indicates that the hardware meets these two requirements, the Government will notify the contractor. If the Manufacturer indicates the hardware does not meet these two requirements, the Government may reject the hardware, revoke acceptance, or pursue any other available and appropriate remedies under the contract.

Software: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of award and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in

accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor shall warrant that all products are new, or, in the case of downloadable software, that all software is sourced from the OEM or Authorized Reseller. By submitting its proposal contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of this contract. Contractor shall certify that it has notified the software Licensor that the United States Marine Corps (Buyer) will be the Licensee. Contractor shall have provided, with any proposal, a copy of the End User license Agreement (EULA), Terms of Service (TOS), or other similar legal instrument or agreement and warrants that all Manufacturer software is or will be licensed originally to Buyer as the original Licensee authorized to use the Manufacturer Software. Note the provisions of FAR 52.212-4(u) apply.

Maintenance: If, during performance of any maintenance required under this contract, the contractor provides replacement hardware or software, then the above Hardware, Software, or both requirements, including all required certification and compliance requirements, apply. The contractor shall ensure that the Government shall have full rights and entitlements to any software maintenance procured under this contract for software for which it has been identified as the original licensee or for which a license is subsequently transferred to the Government.

Hardware, Software, and/or Maintenance: If the contractor is not a Manufacturer Authorized Partner as of the date of the submission of its proposal then, as applicable, contractor shall submit with its proposal a document, from the Manufacturer, that identifies the Vendor by name and states the following:

- (1) That the products proposed (including hardware, software, and/or support services) are genuine (i.e., not counterfeit and not unauthorized secondary market/gray market products) (note: all items, including part numbers where applicable, shall be listed in the document);
- (2) That contractor has the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, in accordance with the applicable Manufacturer certification/specialization requirements;
- (3) That contractor will be able to receive from Manufacturer, and that Manufacturer will not deny, the support services required to support the product(s);
- (4) That contractor has the authority to transfer to the Government all appropriate software licenses associated with the product(s) at no additional cost to the Government; and
- (5) That Manufacturer will not deny required warranty support for the product(s).

The Government's remedies for the contractor's failure to provide conforming products or services consistent with the above requirements are detailed in FAR 52.212-4, with emphasis on paragraphs (a), (m), and (u).

This contract contains the clauses, terms, and conditions acceptable to the Government. Any hardware, software, or maintenance provided under this contract that contains conflicting terms or conditions, including but not limited to an EULA, Software License Agreement (SLA), Purchaser User Rights (PUR), Product User Rights (PUR), Software User Rights Agreement (SURA), Support Agreement, Maintenance Agreement, or any other vendor or OEM-specific agreements regardless of how titled or described, may be considered unacceptable. The contractor is on notice that if they

choose to submit a document containing terms and conditions, they are required to demonstrate that those terms and conditions do not conflict with, or differ from, this contract's terms and conditions, as well as any statute or regulation (e.g., FAR and DFARS). The contractor must provide the Government with an opportunity to review, modify, and approve any relevant EULA, SLA, SUR, PUR, or any other similar OEM-specific agreement, related to items procured under this contract for which the Government will be the licensee or will otherwise take title to. Compliance with this section is a component of technical acceptability for any proposal and for final project acceptance. Vendor-specific or OEM-specific terms and conditions that conflict with statutory or regulatory requirements, or are otherwise disadvantageous to the Government as noted above, may be determined unacceptable.

5.7 DELIVERABLES

5.7.1 TECHNICAL DATA PACKAGE

The contractor shall develop a TDP that contains Engineering Design Plan (EDP), design specifications, and drawings describing and depicting the solution and configuration of all systems and subsystems delivered in support of MCB Quantico's Contract. The review and acceptance process for all design specifications and drawings include a Conceptual Design data package, Developmental Design data package, Production Design data package, Redlines Drawings and As-Built Drawing package. The format for the TDP will be provided to the contractor by the Government at the Contract Kickoff meeting. The TDP shall consist of the Engineering Design Plan, Engineering Design Drawings, Systems Configuration Hardware/Software Baseline (CMDB File), and Materials and Equipment List to include Long Lead Items List. All increments of the TDP shall be delivered in accordance with the timelines identified in Figure 1 and the criteria outlined in Part 8, Technical Exhibit 2, Deliverables Schedule and IAW MIL-STD 31000B, ASME Y14.100, ASME Y14.24, ASME Y14.35M, and ASME Y14.34M.

The contractor shall document all design modifications and/or revisions to the accepted Production Design Data TDP via an ECP IAW the CMP. The ECP shall include updated the Red-line Engineering Design Package that accurately depicts the proposed engineering change. Revisions to the Redline drawings shall be provided every thirty (30) calendar days and previous drawing revisions implemented to produce an updated version. The Redline TDP will be used to perform the Physical Configuration Audit (PCA). Any changes to the redlined drawings and/or CMDB file will be recorded during the Physical Configuration Audit (PCA) and documented in the As-built TDP. The contractor shall provide the As-built TDP at the completion of the project at the Project Closeout Review (PCR) and incorporate all design changes and modifications performed during the implementation.

The contractor shall deliver a Draft CMDB File along with all other required artifacts of the TDP IAW Figure 1 - Contract Notional Timeline as part of the Technical Review Data Package for the Technical Interchange Meeting (TIM), that contains all relevant information about the hardware and software/firmware components provided in the accepted engineering design and the relationship between those components. The contractor shall deliver the Final CMDB file along with all other required artifacts of the TDP as part of the TRDP for the NIR. The CMDB provides an organized view of configuration data and a means of examining that data from multiple perspectives. The CMDB File shall identify all Configuration Items (CIs) delivered under this contract and the associated information and the interface between system components.

As part of the Materials and Equipment List, the contractor shall provide the OEM recommended minimum essential spare parts for DWDM equipment and systems provided under this PWS in order to alleviate system downtime in the event of a critical DWDM hardware failure. The minimum essential DWDM spares shall be identified separately in the Materials and Equipment List. The contractor shall restock any spare DWDM parts utilized during the modernization effort and warranty period.

5.7.1.1 PRODUCT DRAWINGS AND ASSOCIATED LISTS

The contractor shall develop and deliver a TDP with the associated lists and artifacts describing and detailing the installation and configuration of all systems and subsystems delivered in this contract. This process may require the revision and update of existing drawings, and/or development of new drawings to meet the requirements of TDP drawings and associated lists. Only FINAL versions of the Conceptual, Developmental, Production, Redline, and As-Built data packages will be considered for acceptance by the government and represent fulfillment of the deliverable requirements. Existing, revised, new product drawings, and associated lists shall be used as the engineering data for procuring, controlling, using materials, parts, and assemblies whether produced in-house or supplied by the contractor. The drawings shall be used for the manufacture, assembly, provisioning, inspection, testing, and Configuration Management (CM) of the materials, parts, modules, subassemblies, assemblies, and product baseline of the hardware and software delivered in this contract. The TDP and associated lists shall not carry any proprietary markings. The contractor shall provide the necessary design, engineering, manufacturing, and quality assurance requirements necessary to enable the procurement or manufacture of an interchangeable item that duplicate the physical and performance characteristics of the original product. This must be accomplished without any additional design engineering effort or recourse to the original design activity.

1. The contractor shall comply with MIL-STD-3100B, "Technical Data Packages".
2. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
3. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
4. The contractor shall comply with the ASME Y14 Standards and lessons learned to improve the use of the Title Block, Revision Block, Sheet Numbering, and add Parts Lists and a Master Parts List Drawing Type.
5. The contractor shall comply with Installation Design Plan (IDP) drawing codes. (shown in Table 3).

Table 3 – Engineering Design Drawing List

IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
DT	DT	Drawing Tree	D, P, RL, AB
000	000	Functional Interface Diagram (Architecture Drawings)	D, P, RL, AB
010	000	Site Master Index	D
020	200	Installation Master Drawing	D, P, RL, AB
022	100	Master Parts List	D, P, RL, AB

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IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
023		Technical Data Summary	D, P, RL, AB
040	400	Floor Plans and Elevations	D, P, RL, AB
050	400	Antenna Layouts and Elevations	D, P, RL, AB
060	500	Simplified Block Diagrams	D, P, RL, AB
070	500	Cable Block Diagrams	D, P, RL, AB
090		Cross Connect Records	P, RL, AB
100		Distribution Frame Layout	D, P, RL, AB
110	600	Circuit Diagrams	D, P, RL, AB
120	600	Labeling Details	P, RL, AB
130	600	Patch Panel Layouts	P, RL, AB
140		Power Distribution	D, P, RL, AB
160	300	Cable Routing Layouts	D, P, RL, AB
171	700	Mechanical Assembly and Mounting Details	D, P, RL, AB
180	800	Miscellaneous Installation Details	D, P, RL, AB
190		Miscellaneous System Configuration Details	D, P, RL, AB
LEGEND C–Conceptual, D-Developmental, P-Production, RL- Red Line, AB-As Built			

5.7.2 SYSTEMS ACCEPTANCE TEST PLAN

The contractor shall prepare a Systems Acceptance Test (SAT) Plan that encompasses all system and sub-system test activities planned for each system. The following areas shall be emphasized in the SAT Plan: Test Event, Purpose of the Test, Date of Test (Start and End), Location of the Test, Need for Government Test Support, Schedule of Individual Test Events, and Test Procedures.

5.7.3 TEST PROCEDURES, TEST CASES, TEST SCRIPTS

The Test Procedures, Test Cases, Test Scripts (TPTCTS) aligns with the SAT and GAT Plans; identify how each system is integrated, tested, and meets the specified system requirement. The TPTCTS shall include the following: Test Event; Test Diagram; Purpose of the Test; Test Entrance Criteria; Date of Test (Start and End), Location of the Test; Need for Government Test Support; Met, Not Met, or Met With Exception Criteria; and signature block for the Test Operator and Government Witness.

The Contractor shall provide TPTCTSs, as individual appendices to the SAT Plan for each system and sub-system delivered under the PWS. The Test Procedures shall include all test cases and test scripts to demonstrate all system and sub-systems meet the specific requirements of the PWS.

5.7.4 REQUIREMENTS TRACEABILITY MATRIX

To ensure compliance with all requirements, the Contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all requirements defined in the PRS and site-specific requirements. The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, demonstration) to validate the contractor's proposed system design for Government acceptance.

5.7.5 CUTOVER PLAN

The contractor shall develop a detailed Cutover Plan. The Cutover Plan shall provide the overall plan including the schedule, required Government resources, system outages, and fall back plan. In addition, the plan shall contain the system specific detailed procedures.

The contractor shall develop a detailed Cutover Plan for each system and subsystem. The Cutover Plan shall be system specific and shall include, at a minimum, a sequential list of events, detailed procedures, post-Cutover testing requirements/procedures, scheduled service outages/windows, service priority based cut-sheets, and system recovery/fall back plan. The Cutover Plan including any modifications must be accepted by the Government prior to commencement of cutover. Cutover shall not begin without a Government acceptance of the proposed cutover plan.

6 TRAINING

6.1 NEW EQUIPMENT TRAINING

For all non-Cisco OEMs, New Equipment Training (NET) shall be provided by the OEM or OEM certified trainers utilizing the Government approved course of instruction. NET shall consist of courses for administrators, operators, and maintainers (when deemed necessary). The contractor shall detail their training plan in their proposal. Where eLearning or web-based courses are involved a remote registry (user name and password) must be provided to the receiving units for access to the OEM courses. The courses shall not be more than eight hours in length each day and will be conducted Monday through Friday during normal business hours. Following completion of NET, Government approved comments received from attendees (Instructor Rating Forms, End of Course Critiques) shall be incorporated into the course to yield an improved product. The training shall be of sufficient depth and shall include "hands-on" time with the system to ensure that personnel are qualified to teach others (train the trainer concept) and to safely perform tasks in the intended operational environment. Training materials shall be provided IAW the requirements in the Section 6.1 - Training and Table 4 - Training Deliverables Matrix.

Table 4 – Training Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Training Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
2	Training Materials	NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
3	Training Material Updates	As required.	Contractor Format

6.2 TRAINING PERFORMANCE AND EVALUATION

The NCI Logistician and Manpower and Training (MPT) Lead will observe and evaluate the first instance of each training session. The contractor shall update the training materials (if applicable) in preparation for the next training event according to the comments received from attendees and MPT Lead's evaluations, recommendations, and comments. After each training event, all evaluation materials (tests, instructor rating form, and end of course critique) will be delivered to the MPT Lead for ongoing training analysis. An attendance roster shall be administered for each class substantiating each day of attendance and contain each student's basic information such as first and last name, grade, and Military Occupational Specialty (MOS) or Job Series. This roster shall also include class title(s), date and location, the name of the instructor, and the instructor's employer.

6.3 TRAINING MATERIALS SUSTAINMENT

The contractor shall provide any revisions to the training course materials to each student in hard and soft copy. This includes all training material and technical literature required to teach the course (train the trainer concept) which includes but is not limited to instructor lesson plans, student guides, instructional visual aids, and any tests or practical applications with answer guides.

6.4 TRAINING PLAN

The contractor shall prepare and provide a Training Plan to include strategy, methods, and resources to deliver training. This includes training concepts that incorporate course description, learning objectives, conditions, and standards. The Training Plan shall identify delivery methods, media type, anticipated training time, test, and evaluation. The Training Plan shall identify location, frequency, throughput, mitigated safety risks, classroom facilities, and training schedules.

6.5 TRAINING MATERIALS

All training material shall be prepared per MIL-PRF-29612 and the Systems Approach to Training Manual, NAVMC 1553.1. Materials that fall under parameters of Commercial Off-the-Shelf (COTS) or non-developmental items do not necessarily have to be drafted under the specific templates but have to contain the elements within SAT guidelines.

The MPT Lead shall have fifteen (15) calendar days to review the any training materials submitted by the Contractor in the Training Plan, to ensure compliance with MIL-PRF-29612 and SAT Manual (NAVMC 1553.1) guidance and to provide comments and recommendations to the Logistics Lifecycle (LCL) lead.

7 MANDATORY COMPLIANCE DOCUMENTS AND STANDARDS

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

1. Marine Corps Systems Command, Statement of Need (SON) for the Marine Corps Base Telecommunications Infrastructure (BTI), MCB Quantico: Marine Corps Systems Command, 2010.
2. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need, MCB Quantico: Marine Corps Systems Command, 2012.
3. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need (SON), MCB Quantico: Marine Corps Systems Command, 2013.
4. Marine Corps Systems Command/PMM-110, BTI Program Protection Plan, Quantico: Marine Corps Systems Command/PMM-110, 2013.
5. Marine Corps Systems Command/PMM-110, BTI Test Evaluation Strategy, Quantico: Marine Corps Systems Command/PMM-110, 2013.
6. USMC UC Implementation Plan v 1.0, Oct 9 2013 Unified Capabilities Implementation Plan.
7. MCSC/P IS&I, PMM-110/037-15, Acquisition Decision Memorandum for the Base Telecommunications Infrastructure Program, Quantico: Marine Corps Systems Command, 2015.
8. Department of the Navy (DoN), Next Generation Enterprise Network Capabilities Production Document, v. 1.5.6, 2012.
9. Marine Corps Wide Area Network (WAN) Transport Implementation Plan. Version 1.01 dtd 9 September 2017.
10. Department of the Navy, Unified Capabilities Implementation Plan, Washington, DC Department of the Navy, 2015.
11. Navy UC Implementation Plan Nov 22, 2013 Unified Capabilities Implementation Plan

12. DoN Software Process Improvement Initiative (SPII) Guidebook Department of the Navy Policy for Acquisition of Naval Software Intensive Systems, September 16, 2008.
13. Department of Defense, Defense Acquisition Guidebook (DAG).
14. Defense Information Systems Agency (DISA) Net-Centric Enterprise Services (NCES).
15. Department of Defense/DISA, "JITC UC Document Depot / EMS) Letter of Clarification Template Requirements," 4 May 2016.
16. US DoD System Safety Program, 2009.
17. DoD Information Enterprise Architecture Information Enterprise Architecture, v1.1, May 2009.
18. DoD, Manual For The Operation Of The Joint Capabilities Integration And Development System (JCIDS), 2012.
19. DoD Internet Protocol Version 6 (IPv6) Standard Profiles For IPV6 Capable Products Version 6.0 July 2011.
20. DoD Federal Acquisition Regulation Supplement (DFARS) 252.211-7003 Item Identification and Valuation.
21. DoD/CIO UCF January 2013 Unified Capabilities Framework.
22. DoD Procurement Toolbox, 2016.
23. Department of Defense Architecture Framework (DoDAF) v2.0.
24. Department of Defense/Defense Information Systems Agency Unified Capabilities Framework, Washington: Department of Defense/Defense Information Systems Agency, 2013.
25. DoD, Department of Defense Unified Capabilities (UC) Extensible Messaging and Presence Protocol (XMPP) Errata-1.
26. DoD, Department of Defense Assured Services (AS) Session Initiation Protocol (SIP).
27. DoD Guidance on Protecting Personally Identifiable Information (PII).
28. Federal Information Security Management Act (FISMA) of 2002 Standards and guidance for minimum-security requirements for Information Systems.
29. Modular Open Systems Approach (MOSA), Version 2.0.
30. Security Configuration Guides.
31. Strategic Command Directive 527-1 DoD Information Operations Conditions (INFOCON) System Procedures.
32. VoIP STIG Version 3, Release 15, VoIP Security Technical Implementation Guide.
33. DISA Policy and Guidance.
34. DISA, DoD Telecommunications and Defense Switched Network Security Technical Implementation Guide.
35. Network Infrastructure STIG Version 8, Release 8.
36. The Certificate Issuing and Management Components family of Protection Profiles (PPs).
37. Information Technology Infrastructure Library (ITIL) v3 Foundation Procedures, tasks and checklists used by an organization for establishing a minimum level of competency.
38. USAISEC OSPDPR Outside Plant Design and Performance Requirements (OSPDPR).

39. USAISEC I3A-2010 Technical Criteria for the Installation Information Infrastructure Architecture (I3A).
40. International Building Code (IBC 2015).

7.1 FEDERAL PUBLICATIONS

Publication	Short Title
NIST SP 800-58	Voice Over IP (VoIP) Security
CNSSI 5000	Guidelines for VoIP Computer Telephony
OSHA 29 CFR 1910	Occupational Safety and Health Standards
OSHA 29 CFR 1910.269	Electric Power Generation, Transmission, and Distribution
OSHA, 29 CFR 1926.50	Medical services and first aid
OSHA 29 CFR 1926.403	Safety and Health Regulations for Construction
OSHA 29 CFR 1298	Occupational Safety and Health Standards, Washington: Occupational Safety and Health Administration, 2007

7.2 MILITARY UNIQUE STANDARDS

Publication	Short Title
MIL-STD 130N w/CH 1	Identification Marking of U.S. Military Property
MIL-STD-461G	Requirements for the Control of Electromagnetic Interference
MIL-STD-464C	Electromagnetic Environmental Effects Requirements for Systems
MIL-STD-810G w/CH 1	Environmental Engineering Considerations and Laboratory Tests
MIL-STD-882D	Standard Practice for System Safety
MIL-STD-129R	Military Marking for Shipment and Storage
MIL-STD-188 124B	Grounding Bonding and Shielding
DI-MGMT-81650	Integrated Master Schedule (IMS)
MIL-HDBK-419A	Grounding and Bonding
MIL-HDBK-1013/1A	Design Guidelines for Physical Security of Facilities

7.3 DoD OPNAV AND MARCORSYSCOM STANDARDS AND REFERENCES

Publication	Short Title
ASTM D3951 - 15	Standard Practice for Commercial Packaging
CJCSI 6510.01F	Information Assurance (IA) and Support to Computer Network Defense (CND)
CJCSI 6211.02D	Defense Information Systems Network (DISN) Responsibilities
CJCSI 6212.01E	Interoperability and Supportability of Information Technology and National Security Systems
CJCSI 6215.01C	Policy for Department of Defense (DoD) Voice Networks with Real Time Services (RTS)
CJCSI 6130.01F	Master Positioning, Navigation, and Timing Plan
DoD 5000.2	Operation of the Defense Acquisition System
DOD 8420.01	Commercial Wireless Local-Area Network (WLAN) Devices, Systems, And Technologies, November 3, 2017
DoDI 8100.04	Unified Capabilities
DoDI 8500.01	Cybersecurity
DoDI 8510.01	Risk Management Framework for Information Technology
DoDI 5000.64	Accountability and Management of DoD Equipment and other Accountable Property
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 3020.26P	Department of Defense Headquarters Continuity Plan (U)
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 5400.16	DoD Privacy Impact Assessment (PIA) Guidance
DoDI 4140.67	DoD Counterfeit Prevention Policy
DoDI 4161.02	Accountability and Management of Government Contract Property
DODI 8010.01	Department Of Defense Information Network (DODIN) Transport
DoDI 8320.04	Item Unique Identification Standards for Tangible Personal Property
DoDD 8500.01E	Information Assurance, Mission Assurance Category
DoDD 8500.2	Information Assurance Implementation
DoDD 5000.01	The Defense Acquisition System
UCR 2013	Unified Capabilities Requirements 2013 (UCR 2013) w/CH 2
UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property w/CH 2
UFC 3-301-01	Structural Engineering w/CH 3
UFC 3-310-04	Seismic Design of Buildings
UFC 3-501-01	Electrical Engineering

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Publication	Short Title
UFC 3-520-05	Stationary Battery Areas w/CH 1
UFC 3-520-01	Interior Electrical Systems
UFC 3-575-01	Lightning and Static Electricity Protection Systems
UFC 3-580-01	Telecommunications Interior Infrastructure Planning and Design
UFC 3-580-10	Navy and Marine Corps Intranet (NMCI) Standard Construction Practices
UFC 3-600-01	Fire Protection Engineering for Facilities Change 1
UFC 4-021-02	Electronic Security Systems
UFC 2000 Article 64	Stationary Lead-Acid Battery Systems
UID Guide Version 2.5	Assuring Valuation, Accountability and Control of Government Property
USAISEC – I3A, I3MP	Fort Detrick Engineering Directorate, Technical Guide for I3A and I3MP Grounding and Bonding
USAISEC – I3MP	Fort Detrick Engineering Directorate, Technical Guide for Installation Information Infrastructure Modernization Program (I3MP)
USAISEC – I3A	Technical Criteria for the Installation Information Infrastructure Architecture (I3A)
USAISEC - SIPRNet	Secret Internet Protocol Router Network (SIPRNet) Technical Implementation Criteria
USAISEC, TR No. AMSEL-IE-IS 08014	Enterprise Systems Engineering Directorate, I3MP Guide for Facilities Requirements of Core Communications Nodes
USAISEC, TR No. AMSEL-IE-TI 09-001-7A	United States Army Information Systems Engineering Command (USAISEC) Outside Plant Design and Performance Requirements (OSPDPR)
MARADMIN 639/08	USMC CS Vulnerability Management (CSVM) Program
MCBUL 5239	Marine Corps Certification And Accreditation Program
MCO 5239.1	Marine Corps Information Assurance Program (MCIAP)
MCBUL 5234.15B	Marine Corps Enterprise Network Microsoft Computer Operating Systems Directive For Windows 10. Server 2012 and Exchange 2013
NAVMC 5100.1	Marine Corps Operational Safety and Health Program
SECNAVINST 5000.2	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

7.4 INDUSTRY STANDARDS AND REFERNCES

Publication	Short Title
ANSI/EIA 310-D	Cabinets, Racks, Panels, and Associated Equipment
ANSI/TIA 606-C	Administration Standard for Commercial Telecommunications Infrastructure
ANSI/TIA 568.0-D	Generic Telecommunications Cabling for Customer Premises
ANSI/TIA 606-C	Administration Standard for Telecommunications Infrastructure
ANSI/TIA 569-D	Telecommunications Pathways and Spaces
ANSI/TIA 942-B	Data Center Cabling Standard
ANSI/TIA-568.3-D	Optical Fiber Cabling Components
ANSI/TIA- 455-133-A	Measurement of Fiber or Cable Length Using an OTDR
ANSI/TIA/EIA-455-8-2000	Measurement Methods and Test Procedures – Attenuation OTDR
ANSI J-STD -607-C w/CH 1	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
ANSI Z535.4	Product Safety Signs and Labels
ANSI/BICSI 002	Data Center Design and Implementation Best Practices
ANSI/HFES 100	Human Factors Engineering of Computer Workstations
ANSI/ISEA Z358.1	American National Standard for Emergency Eyewash and Shower Equipment
ANSI/IEEE 142	Recommended Practices for Grounding of Industrial and Commercial Power Systems
ANSI/IEEE C2	National Electrical Safety Code (NESC)
IEEE 802.3	Standard for Ethernet
IEEE 802.3at	IEEE Standard for Information technology - Local and metropolitan area networks - Specific requirements - Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 3: Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements
IEEE 802.3af	IEEE Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications - Data Terminal Equipment (DTE) Power Via Media Dependent Interface (MDI)
IEEE 802.1Q	Virtual Local Area Networks (LANs)
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.3ab	1000BASE-T Gigabit Ethernet

Publication	Short Title
IEEE 802.3z	Gigabit Ethernet Over Optical Fiber and Shielded Twisted Pair (STP)
IEEE 802.3ae	10 Gigabit Ethernet (10 GbE)
IEEE 802.1w	Rapid Reconfiguration of Spanning Tree
IEEE 802.1s	Multiple Spanning Trees
IEEE 802.3ba	40/100 Gigabit Ethernet
IEEE RFC7348	Virtual eXtensible Local Area Network (VXLAN)
IEEE 802.11	IEEE Standard for Information Technology - Telecommunications and information exchange between systems Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
IEEE 1100	IEEE Recommended Practice for Powering and Grounding Electronic Equipment. (IEEE Emerald Book)
IEEE 1106	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1187	IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Storage Batteries for Stationary Applications
IEEE 1188	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1189	IEEE Guide for Selection of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
IEEE 1220	IEEE Application and Management of the Systems Engineering Process
IEEE 1471	Recommended Practice for Architecture Description of Software Intensive Systems
IEEE 15288.2	Standard for Technical Reviews and Audits on Defense Programs
MIL-STD 31000 Rev. C	Technical Data Packages
ASME Y14.100	Engineering Drawing Practices
ASME Y14.24	Types and Applications of Engineering Drawings
ASME Y14.35M	Revision of Engineering Drawings and Associated Documents
ASME Y14.34M	Associated Lists
IETF RFC 2819	Remote Network Monitoring Management Information Base
IETF RFC 3261	SIP: Session Initiation Protocol

Publication	Short Title
IETF RFC 3410	Introduction and Applicability Statements for Internet-Standard Management Framework
IETF RFC 3418	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
IETF RFC 4346	The Transport Layer Security (TLS) Protocol, Version 1.1
IETF RFC 5709	OSPFv2 HMAC-SHA Cryptographic Authentication
IETF RFC 5798	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6
IETF RFC 5905 v4	Network Time Protocol Version 4: Protocol and Algorithms Specification
NEMA 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
NFPA 1	Fire Code
NFPA 70	National Electrical Code
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 72	National Fire Alarm and Signaling Code
NFPA 75	Standard for the Protection of Information Technology Equipment
NFPA 76	Stationary Lead-Acid Batteries
NFPA 101	Life Safety Code
NFPA 110	Standard for Emergency and Standby Power Systems
NFPA 780	Standard for the Installation of Lightning Protection Systems
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems
GR-513-CORE	Power Requirements in Telecommunications Plants
GR-1275-CORE	Central Office/Network Environment Equipment Installation/Removal Generic Requirements
GR 1502-CORE	Central Office/Network Environment Detail Engineering Generic Requirements
GR-3160-CORE-001	Generic Requirements for Telecommunications Data Center Equipment and Space, Jul 2013
UL 96A	Standard for Installation Requirements for Lightning Protection Systems
UL 467	Grounding and Bonding Equipment
UL 497	Standard for Protectors for Paired-Conductor Communications Circuits
UL 497A	Standard for Secondary Protectors for Communications Circuits
UL 497B	Standard for Protectors for Data Communications and Fire-Alarm Circuits
UL 1449	Standard for Surge Protective Devices

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Publication	Short Title
EIA-625	Requirements for Handling Electrostatic Discharge-Sensitive (ESDS) Device
IFC	International Fire Code
EPA 40 CFR	Protection of Environment: Hazardous Material Inventory and Reporting, Spill Control, Spill Reporting, and Disposal
ISO/IEC/IEEE 8802-15-4	Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 15-4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for low-rate Wireless Personal Area Networks (WPANs)
ITU-T G.655	Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable
ITU-TG.709/Y1331	Interfaces for Optical Transport Network.
ITU-TG.798	Characteristics of Optical Transport Network Hierarchy
ITU-TG 872	Architecture of Optical Transport Networks
ITU-TG 873.1	Optical Transport Network Linear Protection.
ITU-G.694.1	Spectral grids for WDM applications: DWDM Frequency Grid
ITU-G.692.2	Amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces
LPI 175	Standard of Practice for the Design - Installation - Inspection of Lightning Protection Systems

8 APPLICABLE PUBLICATIONS (CURRENT EDITIONS)

The following documents apply to this Performance Specification. In the event of conflict between the applicable documents and this PWS, the PWS shall take precedence. All documents cited as compliance documents shall be considered as guidance only. Nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained. Appendix A - *MCB Quantico – Site Specific Equipment* provides a listing of the MCB Quantico existing nodes and equipment per site.

Appendix	Document/Reference	Purpose
A	Site Specific Equipment	Provides a listing of the MCB Quantico existing nodes and equipment per site.
B	NCI Systems Engineering Plan (SEP)	Describes the Government's systems engineering process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
C	NCI Test and Evaluation Management Plan	Describes the Government's test and evaluation process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
D	PM N&I Configuration Management Plan	Describes the Government's configuration management process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
E	NCI Risk Management Plan	Describes the Government's risk management process. The Contractor is expected to have a similar effort that integrates with the Government's risk reporting process.
F	BTI Life-Cycle Sustainment Plan (LCSP)	Describes the Government's sustainment process.
G	BTI Item Unique Identification (IUID) Plan	Describes the Government's equipment accountability requirements and process.
H	PM N&I Programmatic Environmental, Safety, and Occupational Health Evaluation (PESHE)	Describes the Government's Environmental, Safety, and Occupational Health (ESOH) risk management approach (strategy, processes, and procedures) to include the integration of ESOH considerations in the acquisition and systems engineering processes.
I	Quality Assurance Surveillance Plan (QASP)	Describes the method by which the Government will monitor the Contractor's overall performance. The Contractor is expected to satisfy all the requirements of the contract by leveraging the surveillance procedures and methodologies established the QASP.
J	NCI BAN Reference Architecture	
K	NCI UC Reference Architecture	
L	NCI Network Power Reference Architecture	

8.1 GENERAL

The contractor shall develop an engineering design to deliver a turnkey solution that conforms to all the performance requirements specifications in this section of the PWS. The design and operation of the solution is governed by the NGEN Capability Production Document (CPD) and the BTI Statement of Need (SON) and associated Letters of Clarification (LOC). These governing documents include Key Performance Parameters (KPP) which must be maintained throughout the modernization of the communication infrastructure to be performed at MCB Quantico, and are the foundation of the systems design characteristics. Those KPPs are identified in Section 8.1.1. Additional system and subsystem specifications are identified sections 8.2 and 8.3. Specifications governing Site Preparation and Network Power are provided in section 8.4.

8.1.1 SYSTEM-WIDE KEY PERFORMANCE PARAMETERS

Performance Objective	Performance Threshold	Method of Surveillance
KPP-1	Components shall be JITC compliant.	Inspection
KPP-2	The system(s) shall have an operational availability of 99.999%.	Analysis
KPP-3	The system shall have a growth capacity of 25% to support the increase in users without an equipment replacement.	Analysis
KPP-4	Installations with geographically separate Points of Presence (PoP) shall have redundant UC and BAN equipment and services at each CN connected in a split core configuration mirroring the transport boundary.	Analysis

8.2 UNIFIED COMMUNICATIONS SYSTEM

The Regional UC solution shall provide business voice capability to those locations where the solution will be deployed. MCB Quantico shall include all NIPRNet users on MCB Quantico. The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911) services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

8.2.1 VOICE EQUIPMENT INSTALLATION AND CONFIGURATION

Delivery of voice and data services to the end-user shall be provided over a single physical infrastructure connection (port) at the end-user workstation. Physical connection of the end-user devices in series via the phone set. Logical connection for voice and data services shall be accomplished via Virtual Local Area Network (VLANs) or Software-Defined Network (SDN) virtual network.

Each new line module and gateway shall be fully wired to the MDF and equipped with all required common control and power cards, and connected to the assigned Local Session Controllers (LSCs). The contractor shall EFIST and make operational any new cards required to support a mixture of

analog. The contractor shall provide one analog gateway per DN and 8,000 knowledge workers and associated hardware. The contractor shall furnish and install equipment blocks, vertical frames, cables, Digital Cross-Connect (DSX) panels, etc., to terminate the equipped and wired capacity onto the horizontal side of the MDF or cross-connect. The contractor shall coordinate placement of equipment blocks with the TSO. The contractor shall test all endpoints after installation is complete.

8.2.2 EQUIPPED SUBSCRIBER PORT CAPACITY

The equipped subscriber port capacity shall be fully licensed, assigned, and activated at the time of cutover. Equipped line cards shall be distributed evenly across all media gateway shelves and line modules to prevent an outage of ports of the same type in the same workspace in the event of hardware failure. The contractor shall build temporary subscriber test lines of all equipped types on each line card module or drawer for testing equipment dial tone during System Acceptance Test (SAT).

8.2.3 WIRED SUBSCRIBER PORT CAPACITY

The wired subscriber port capacity shall be provided as pre-wired hardware (i.e., shelves, drawers, common control circuit packs, etc.) and have the ability to be activated only through the use of basic switch translations and the installation of subscriber port modules and circuit packs.

8.2.4 REPLACEMENT PHONE SETS

The contractor shall provide replacement phone sets at the time of systems cutover. The replacements are provided to support the operations and maintenance of the voice network after Government acceptance. The quantity of replacement phone sets to be delivered shall be 8,000.

8.2.5 KEY SYSTEMS ATTRIBUTES

8.2.5.1 REGIONAL UC SYSTEM

Performance Objective	Performance	Method of Surveillance
UC-1	The Regional UC system shall provide IP and analog voice services to each end-user on all Installations within the region.	Inspection
UC-2	The Regional UC shall provide the ability to call between regional end-users without using the softswitch backbone.	Analysis
UC-3	Voice services include business voice, voice conferencing, voice mail, and unified messaging.	Inspection
UC-4	The UC system shall have a Telecommunications Management System (TMS) that supports all the Installations within the region.	Inspection
UC-5	Support the Differentiated Service Code Points (DSCP) markings to implement QoS/CoS.	Inspection
UC-6	Provide native audio Mean Opinion Score (MOS) of 3.8, at a minimum, IAW the Telecommunications Industry Association (TIA) Telecommunications – IP Telephony Equipment – Voice Quality Recommendations for IP Telephony (TSB-116-A).	Inspection

8.2.6 MAJOR FUNCTIONAL REQUIREMENT

8.2.6.1 LOCAL SESSION CONTROLLER

Performance Objective	Performance	Method of Surveillance
LSC-1	A UC system shall consist of LSCs and Media Gateways as required at each B/P/C/S.	Inspection
LSC-2	LSCs installed at each Installation as defined above shall conform to the requirements for Assured Services Core Session Controller as defined in the UCR 2013 w/Change 2.	Inspection
LSC-3	Each LSC shall interface with the other LSCs in its region in a coordinated cluster to provide full failover capability across Installations.	Inspection
LSC-4	Each LSC shall provide local survivability in the event DISN connectivity is lost.	Inspection
LSC-5	Each LSC shall support local session management when in a disconnected state.	Inspection
LSC-6	Each LSC shall support on Base E911/NG911 routing to the PSAP or ERC, via existing Installation infrastructure.	Inspection
LSC-7	The UC systems shall provide both DSN and PSTN Directory Number assignments for each subscriber.	Inspection

Performance Objective	Performance	Method of Surveillance
LSC-8	Automatic Call Distribution (ACD) shall be provided at the region.	Inspection
LSC-9	Supported Users can utilize softphones through secure VPN from any remote location.	Inspection

8.2.6.2 SESSION BORDER CONTROLLER

Performance Objective	Performance	Method of Surveillance
SBC-1	SBCs shall be co-located and configured in a redundancy group.	Inspection

8.2.6.3 TELECOMMUNICATIONS MANAGEMENT SYSTEM

Performance Objective	Performance	Method of Surveillance
TMS-1	The TMS will be located at MCB Quantico.	Inspection
TMS-2	The TMS shall have a direct interface to Remedy for asset tracking.	Inspection

8.2.6.4 CUSTOMER SERVICE SUPPORT APPLICATION

Performance Objective	Performance	Method of Surveillance
CSSA-1	Customer Service Support Application (CSSA) shall be provided at the region.	Inspection
CSSA-2	CSSA shall provide call routing via Interactive Voice Recognitions (IVR) for management, administration features.	Inspection
CSSA-3	CSSA shall support 400 agents.	Inspection
CSSA-4	CSSA shall have a built in “heat map” to allow scheduling during peak usage vice time of day.	Inspection

8.3 BASE AREA NETWORK

The BAN at MCB Quantico shall be developed in accordance with the reference architecture shown in Figure 2 or Figure 3 and interface with the MCEN Core Switches. The BAN consists of DNs and Edge Access Devices logically connected as depicted in Figure 2 or Figure 3. A DWDM and PON system shall be EFIST'd. They shall provide connectivity between the core nodes and the area distribution nodes. Connectivity to the end-user will be accomplished over traditional Ethernet switches and Edge Access Devices or Optical Network Terminals (ONT) located in EUBs. The BAN shall satisfy all the KSA and the Major Functional Requirements identified the following sections.

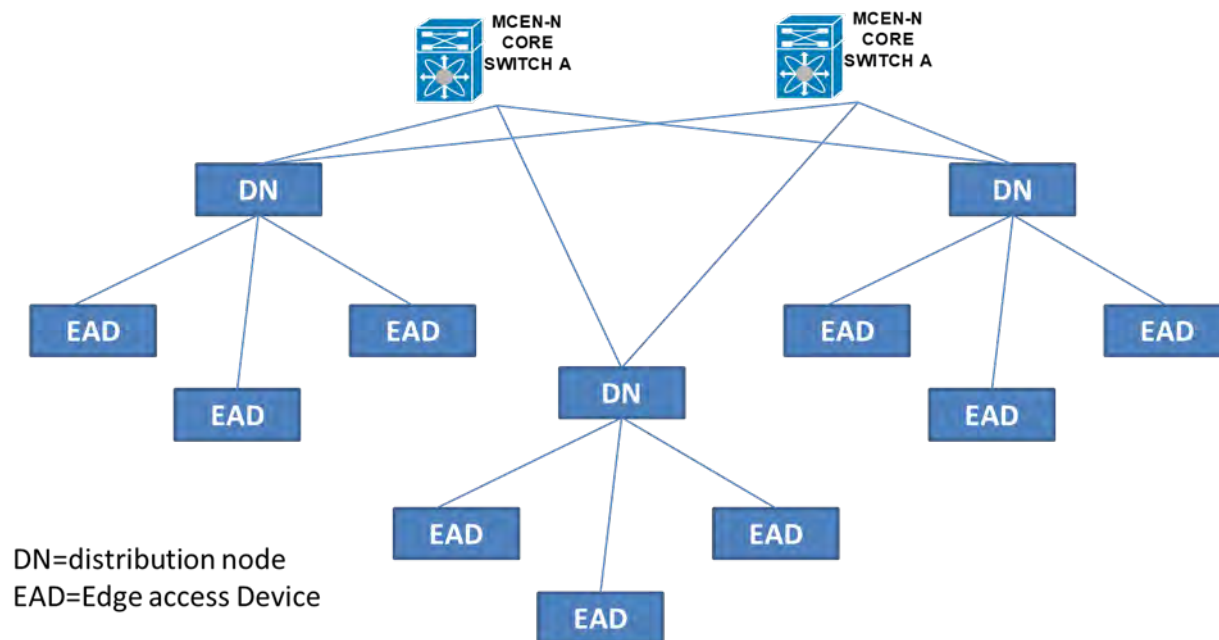


Figure 2 – BAN Reference Architecture

8.3.1 KEY SYSTEMS ATTRITBUTES

8.3.1.1 Base Area Network

Performance Objective	Performance	Method of Surveillance
BAN-1	Voice, video and data shall be converged on the single installation BAN.	Inspection
BAN-2	The BAN shall support multi-tenancy on the single installation infrastructure.	Inspection
BAN-3	The BAN shall be operated from a single management system executed from a centralized Network Operation Center (NOC) on MCB Quantico.	Inspection
BAN-4	The BAN shall operate within the constraints of the Installation Gateway.	Inspection

8.3.2 MAJOR FUNCTIONAL REQUIREMENT

8.3.2.1 WAVELENGTH DIVISION MULTIPLEXING

The Optical Transport System (OTS) for the Backbone Transport shall be comprised primarily of DWDM technology to include all equipment and components to make a complete and functional Wave Selectable Switch (WSS) Reconfigurable Optical Add/Drop Multiplexers (ROADMs) nodal network elements. The OTS may include Course Wavelength Division Multiplexing (CWDM) technology in those instances in which a point-to-point connection is required between nodes with limited circuit requirements such as a linear spur to a node in a remote location or Installations that have two CNs, only. The contractor shall leverage existing optical fiber to provide a full or partial mesh topology with no single point of failure.

Performance Objective	Performance	Method of Surveillance
WDM-1	The WDM shall provide sufficient network degrees at each node to support the topology plus one spare degree.	Inspection
WDM-2	The WDM shall provide an integrated wave selectable switch Reconfigurable Optical Add/drop Multiplexer (ROADM) to support all the nodes.	Demonstration
WDM-3	Each degree shall transmit a minimum of 40G wavelengths on the initial configuration.	Test
WDM-4	The WDM network shall be upgradable to 200G and 400G wavelengths without removing the existing hardware suite (circuit card replacement is acceptable) (Objective).	Inspection
WDM-5	Path protection shall be implemented to provide high availability to each node.	Inspection

8.3.2.2 PASSIVE OPTICAL NETWORK (PON)

A PON network is a converged transport schema that is designed to carry multiple services such as VoIP, Data, IP Video, and Radio Frequency (RF) Video. The common PON operational framework technologies in use are Ethernet PON (EPON), Broadband PON (BPON) and Gigabit PON (GPON). GPON conforms to the ITU T G984 series (G.984.1 through G.984.7) and provides bit rates above 1 Gbps. EPON conforms to the IEEE 802.3ah and 802.3av specifications with options for 1/1 Gbps 10/1 Gbps and 10/10 Gbps.

At a high level, a PON consists of a head-end device called an Optical Line Terminal (OLT). The OLT may be deployed at the Distribution (e.g., Main Communication Node or Area Distribution Node), and Access (e.g., End User Building) Layers. End user endpoints are equipped with ONTs that provide Ethernet, 2-wire analog Plain Old Telephone Service (POTS), and even RF video. As many as 64 (and in some cases more) ONTs connect to a PON port via a single, single mode fiber whose optical signals are combined at a passive splitter. A PON utilizes Wavelength Division Multiplexing (WDM), using

one wavelength for downstream traffic and another for upstream traffic across one single, single-mode fiber optic cable. The PON specifications provide downstream traffic to be transmitted over a single fiber on the 1490 nanometer (nm) wavelength and upstream traffic to be transmitted at 1310 nm. A third 1550 nm band is allocated for overlay services, in this case, RF (analog) video.

In PON, power to the ONT is not provided via the fiber network. If power would be needed, it is provided via copper (which could be included with fiber in the network cable). Power to the ONT can be deployed in two ways, local and remote. Remote power can be provided as centralized or distributed DC plants. Centralized DC plant requires NEC Class 1 compliant cabling while Distributed DC plant requires NEC Class 2 compliant cabling.

The distributed remote power is provided by the power unit installed at the communication closet. This enables the PDU to provide power to the desktop for the ONTs using existing copper cabling that had previously been used to provide Ethernet signal to the desktop. Since this unit is modular, it can be expanded as the needs of the zone grows. This PDU must be able to provide the proper wattage to power not only for the ONT, but also the Power over Ethernet (PoE) powered devices connected to the ONT. If existing catX cables are not available, then independent x/2 cables or composite fiber and copper pair cables can be used.

Figure 3 displays PON Connectivity in the DoD operational framework, and shows a typical installation utilizing the OLT in the Distribution (ADN) and Access (EUB) Layers of the DoD UC model.

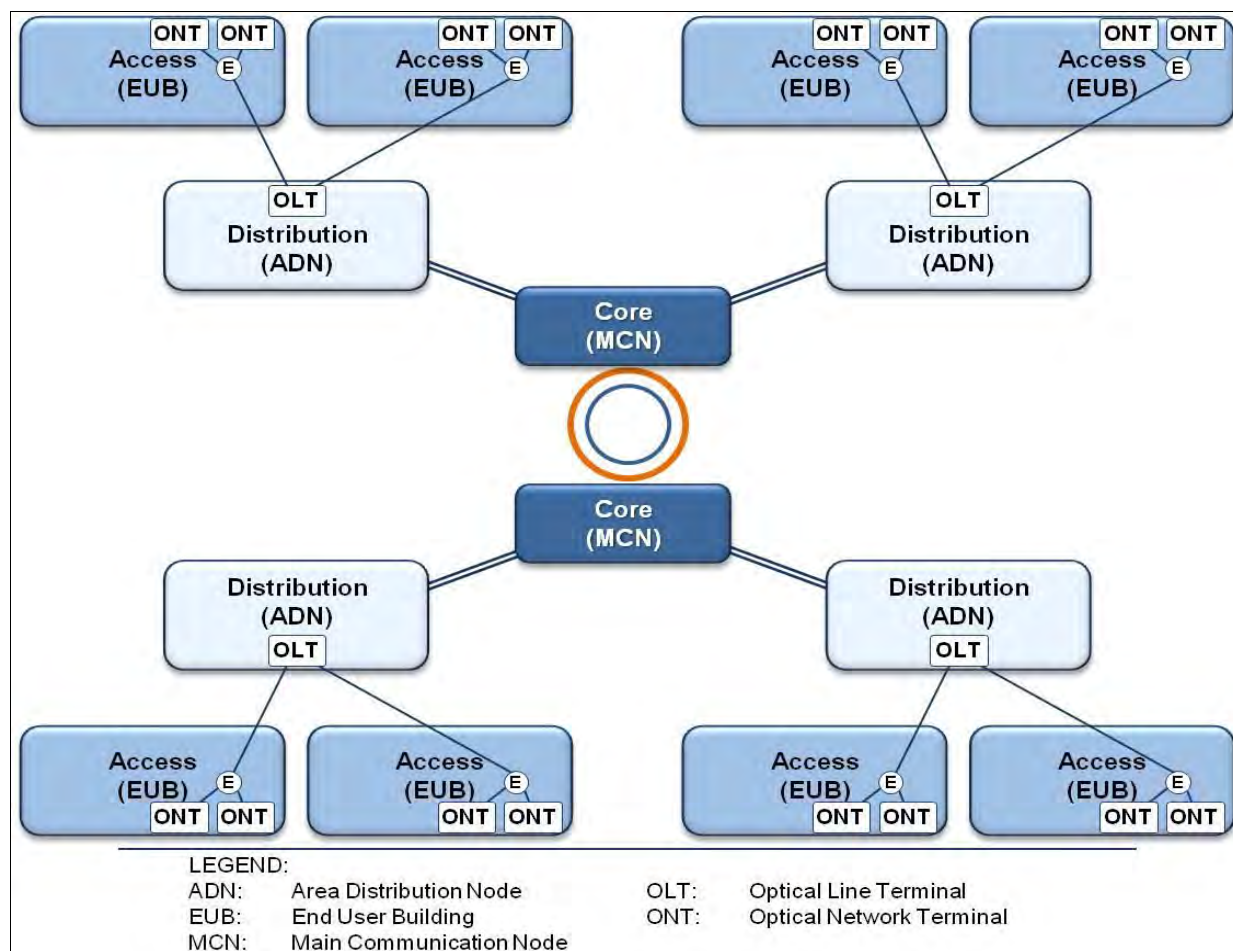


Figure 3-PON Reference Architecture

Performance Objective	Standard	Performance	Method of Surveillance
REQ001	N/A	To ensure Quality of Service (QoS), all NCI materiel solutions must provide Differentiated Services mechanisms.	N/A
	UCR EDG-000160	The system shall provide Differentiated Services mechanisms to ensure QoS	Analysis
	Derived	The system shall provide different priority levels for users.	Analysis
	Derived	The system shall provide different priority levels for data flows.	Analysis
	UCR EDG-000090	The Core and Distribution products shall be capable of accepting any packet tagged with a DSCP value (0-63) on an ingress port and reassign that packet to any new DSCP value (0-63)	Analysis

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	Passive Optical Network shall be capable of supporting the prioritization of aggregate service classes with queuing. Queuing may be supported as Layer 2 or Layer 3 class of service (CoS)	Analysis
REQ002	N/A	Support network "slices" in campus/base environments, which enable IT managers to segment the network for specific needs.	N/A
	Derived	The solution shall support multi-tenant network services	Analysis
	Derived	The solution shall support the capability of varying agencies communicating with one another, without mixing traffic flows	Analysis
REQ003	N/A	Support Dynamic Bandwidth Allocation and Throttling, which enable IT managers to better manage the SLA.	N/A
	Derived	The solution shall support Dynamic Bandwidth Allocation and Throttling	Demonstration
REQ004	N/A	Provide support of standard protocols to build a PON network infrastructure – NNI Interface	N/A
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR EDG- 000410	The solution shall support 1000 Mbps IAW IEEE 802.3z for the NNI interface	Analysis
	UCR EDG- 000600	The solution shall support Rapid Configuration of Spanning Tree IAW IEEE 802.1w	Analysis
	Derived	The solution shall support Link Aggregation IAW IEEE 802.1AX (formerly 802.3ad)	Analysis
REQ005	N/A	Provide support of standard protocols to build a PON network infrastructure – OLT to PON Interface	N/A
	UCR EDG- 000610	The PON system shall provide one of the following PON (OLT-ONT) technologies: a. GPON IAW G.984 series (G.984.1 through G.984.7). b. EPON IAW 802.3ah. (1 Gbps). c. GEAPON IAW 802.3av (10 Gbps)	Analysis
REQ006	N/A	Provide support of standard protocols to build a PON network infrastructure – UNI Interface	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR SEC-001760	The solution shall support Port-Base Access Control IAW 802.1x	Analysis
	UCR SEC-000080	The solution shall provide Link Layer Discover – Media Endpoint Discovery IAW ANSI TIA 1057	Analysis
	UCR SEC-000080	The solution shall support Auto-negotiation IAW IEEE 802.3	Analysis
	Derived	The solution shall support Power over Ethernet (PoE) IAW either 802.3af-2003 or 802.3at-2009	Demonstration
REQ007	N/A	Provide support of standard management protocols	N/A
	Derived	The solution shall support SNMP V3	Demonstration
	UCR EDG-000820	The solution shall support Secure Shell Version 2 (SSHv2)	Demonstration
	UCR EDG-000840	The solution shall support HTTPS.	Demonstration
REQ008	N/A	Provide support for Voice Services	N/A
	UCR EDG-000720	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG-000730	Jitter - The PON shall have the capability to transport prioritized voice IP packets across the PON SUT	Test and Analysis
	UCR EDG-000740	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ009	N/A	Provide support for Data Services	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 000780	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG- 000790	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ010	N/A	Support network "scaling" in campus/base environments, which enable IT managers to upgrade network infrastructure without service interruption.	N/A
	Derived	The solution shall support add change move of the network device without the service interruption.	Demonstration
	Derived	The solution shall support unique node upgrade in distribute systems without influence on the whole system.	Analysis
REQ011	N/A	Provide redundancy in PON network.	N/A
	UCR EDG- 000990	PON shall have no single point of failure that can cause an outage of more than 96 IP telephone subscribers.	Analysis
	UCR EDG- 001020	PON shall support a Layer 2 Dynamic Rerouting protocol. Failover shall occur in no more than 1 second.	Demonstration
REQ012	N/A	Provide centralized management and monitoring of the PON	N/A
	Derived	The solution shall provide centralized management to leverage automated tools to provision, configure and manage PON network	Analysis
	Derived	The solution shall abstract all of the complexities and dependencies and provide the user with a simple set of GUI tools to easily manage and operate the entire network.	Demonstration
	Derived	The solution shall provide database backup and restore	Demonstration

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 001110	The PON product shall support Fault, Configuration, Accounting, Performance, and Security (FCAPS) Network Management functions	Demonstration
	Derived	The solution shall provide Secured process for downloading and establishing software at the Network Element	Analysis

8.3.2.3 CORE AND DISTRIBUTION NODES

Performance Objective	Performance	Method of Surveillance
ADN-1	Node elements shall have a minimum of 10 Gbps uplinks to the MCEN Core Switch.	Inspection
ADN-2	There shall be two BAN core routers located in Bldg. 1999 and Bldg. 24204.	Inspection
ADN-3	The BAN core routers shall be configured in active-active configuration.	Inspection
ADN-4	The BAN core routers shall perform all BAN routing.	Inspection
ADN-5	The BAN core routers shall support MPLS.	Inspection

8.3.2.4 EDGE ACCESS DEVICE

Performance Objective	Performance	Method of Surveillance
EAD-1	Edge Access Devices shall have a minimum of 10 Gbps uplink to the DN element.	Inspection
EAD-2	Edge Access Devices shall have uplink diversity and redundancy when allowed by the outside plant.	Inspection
EAD-3	Edge Access Devices shall have a minimum of 10 Mbps end-user interfaces.	Inspection
EAD-4	Edge Access Devices shall have a minimum 10 Gbps interface to the Wireless Access Point (WAP).	Inspection
EAD-5	Edge Access Devices shall support POE+.	Inspection

8.4 SITE PREPARATION

Site preparation will be provided on an as needed basis at CNs and DN nodes only.

8.4.1 KEY SYSTEMS ATTRIBUTES

Performance Objective	Performance	Method of Surveillance
SP-1	The Network Power System shall provide sufficient uninterruptable AC and DC power to support all IT systems and components located in the facility.	Analysis
SP-2	The Network Power System shall provide sufficient transitional power in the event of loss of shore/commercial power until emergency backup comes on-line.	Demonstration
SP-3	Auxiliary infrastructure shall be installed IAW with all applicable Unified Facilities Criteria.	Inspection

8.4.2 MAJOR FUNCTIONAL REQUIREMENT**8.4.2.1 NETWORK POWER SYSTEM**

The contractor shall validate the power requirements at the VSS. If needed, the Government may request that the Contractor provide Network Power Systems at the Core and Distribution Nodes to support all the systems and subsystems delivered as a part of the proposed solution. This Network power systems shall include an AC connection to commercial or shore power, N+1 3-Phase AC UPS, Automatic Transfer Switch (ATS), self-testing network Emergency Power Off (EPO) switch, battery disconnect switch, and any necessary sub-panels, cabinet or rack power supply buss trackway and Power Distribution Units (PDUs).

Network Power Systems modernization (upgrade/replacement) will be provided on an as needed basis at Installations Core and Distribution Nodes only.

8.4.2.2 NETWORK PANELBOARDS AND SUBPANELS

Performance Objective	Performance	Method of Surveillance
NPS-1	All Network power panels and subpanels shall be 120/208 VAC, 3-phase, Y-connected, with separate neutral and ground conductors.	Inspection
NPS-2	Bonding of neutral and ground conductors shall be done in accordance with NFPA 70 and the NEC instruction regarding bonding of neutral to ground in a multi-panel system.	Inspection
NPS-3	AC distribution system wiring shall include a separate copper conductor marked as per NFPA 70 and the NEC instruction installed throughout all branch and feeder circuits.	Inspection
NPS-4	All network AC power panels feeding branch circuits shall be sized for not less than 25 percent growth in circuit breaker quantity.	Analysis

Performance Objective	Performance	Method of Surveillance
NPS-5	Circuit panels and circuit breakers shall not exceed 80% of the nameplate ampacity of the circuit breakers.	Inspection
NPS-6	All circuits for network equipment racks and cabinets shall be dedicated circuits.	Inspection
NPS-7	A self-testing Emergency Power Off switch shall be installed.	Demonstration

8.4.2.3 AC NETWORK POWER

Performance Objective	Performance	Method of Surveillance
ACP-1	A N+1, 3-Phase AC UPS shall be sized to meet designed systems power capacity, inclusive of the designed system reserve capacity.	Analysis
ACP-2	A 3-Phase UPS shall provide surge protection in a transformer-less topology and non-degenerative filtering for lighting strikes.	Inspection
ACP-3	A 3-Phase UPS shall provide load fault detection and clearing.	Demonstration
ACP-4	A 3-Phase UPS shall provide a harmonic reduction system to detect when harmonics, power factor or phase unbalance are out of limits and automatically corrects to the user-defined set point.	Demonstration
ACP-5	A 3-Phase UPS shall have the capacity to house the batteries in the same cabinet as the UPS for CNs and DN's to save floor space.	Inspection
ACP-6	A 3-Phase UPS shall have a three stage charging process that is capable of extending battery life by 50%.	Test
ACP-7	A 3-Phase UPS shall provide advanced notification prior to battery failure.	Demonstration
ACP-8	A 3-Phase UPS shall have a color touchscreen LCD interface.	Inspection
ACP-9	A 3-Phase UPS shall have internal modularity.	Analysis
ACP-10	A 3-Phase UPS shall have an internal maintenance bypass switch.	Inspection
ACP-11	A 3-Phase UPS shall have a UL 924 certification for emergency lighting.	Inspection
ACP-12	A 3-Phase UPS shall be serviceable thru the front of the cabinet. It shall have the ability to be put against the wall or in a corner.	Inspection

Performance Objective	Performance	Method of Surveillance
ACP-13	A 3-Phase UPS shall be rated an Energy Star Qualified partner with the U.S. Environmental Protection Agency and the U.S. Department of Energy.	Inspection
AACP-14	A 3-Phase UPS shall provide 99% efficiency across the operating load range.	Test
ACP-15	A 3-Phase UPS shall provide double conversion efficiency at 97% or greater.	Test
ACP-16	A 3-Phase UPS shall be equipped with a quick glance from a distance system status, via green/yellow/red LED light panel.	Inspection
ACP-17	A 3-Phase UPS shall be equipped with power monitoring and reporting software that is compatible with HTTP(S), SNMP, MODBUS TCP/IP, Modbus RTU, and BACnet IP protocols.	Inspection
ACP-18	A 3-Phase UPS shall have a safety certification that complies with the UL 1778, UL 924 Emergency Lighting and Power.	Inspection

8.4.2.4 DIRECT CURRENT NETWORK POWER

Performance Objective	Performance	Method of Surveillance
DCP-1	In the event a network component chassis requires DC power, a stand-alone N+1 rack mounted rectifier shall be sized and installed in the same rack to provide the required DC power capacity for that singular chassis component.	Inspection

8.4.2.5 NETWORK POWER DISTRIBUTION SYSTEM

Performance Objective	Performance	Method of Surveillance
NPD-1	PDUs shall have a 3-phase 120/208 VAC four-pole modular track buss way electrical distribution system above each equipment row fed from a 3-Phase UPS.	Inspection
NPD-2	The PDU track buss way power system shall be rated for 225 amps and 600 volts with each equipment row fed from a separate breaker.	Inspection
NPD-3	Each installed PDU track buss way power system shall have metering capabilities for each phase that includes an automatic cycling display that display Voltage, Current, and Power Usage, at a minimum.	Demonstration
NPD-4	A plug-in unit containing a 3-phase, 30-amp circuit breaker and a receptacle or drop-down cord with receptacle shall be installed above each rack as required to accommodate the equipment rack PDU.	Inspection
NPD-5	Equipment racks and cabinets containing equipment with “A” and “B” AC power supplies shall have two (2) plug-in drops and two (2) PDUs provided.	Inspection
NPD-6	Equipment racks and cabinets containing only passive equipment (i.e., unpowered fiber optic patch panels) do not require power drops or PDUs.	Inspection
NPD-7	Each equipment rack or cabinet shall have a combination 120/208 VAC PDU.	Inspection
NPD-8	Each PDU shall have not less than nine (9) IEC 320 standard C13 receptacles.	Inspection
NPD-9	Each PDU shall have not less than three (3) IEC 320 standard C19 receptacles.	Inspection
NPD-10	Each PDU shall have not less than twelve (12) NEMA 5-20 receptacles.	Inspection
NPD-11	Each phase in the PDU shall have a dedicated breaker.	Inspection
NPD-12	Equipment racks and cabinets containing equipment with “A” and “B” power supplies shall have two PDUs provided.	Inspection

8.4.2.6 NETWORK EMERGENCY BACKUP POWER SYSTEM

Performance Objective	Performance	Method of Surveillance
EBP-1	In the event commercial or shore power is interrupted, the 3-Phase UPS batteries shall be sized to provide uninterruptable, transitional power. A fully functional generator will be provided by the Government (B/P/C/S) as the sole source of emergency backup power.	Inspection / Demonstration
EBP-2	The batteries shall conform to the Unified Facilities Criteria (UFC) 3-520-05 and the UFC 3-520-01.	Inspection
EBP-3	The battery system shall use Valve Regulated Lead Acid (VRLA) batteries unless Lithium Ion batteries are approved by the Government.	Inspection
EBP-4	VRLA batteries shall be equipped with a battery management system to manage the battery rest and charge cycles to extend their life.	Test
EBP-5	VRLA batteries systems shall be monitored for cell failure.	Test
EBP-6	A keyed battery disconnect switch shall be installed at the exterior of the building adjacent to the entrance or in a location prescribed by the AHJ.	Inspection

8.4.3 AUXILIARY INFRASTRUCTURE

The contractor shall provide auxiliary infrastructure at the CNs and DNs to support the systems and subsystems delivered as a part of the proposed solution as defined by the Site Specific Requirements. Auxiliary infrastructure consists of the following: equipment racks/cabinets, bracing, seismic bracing, patch panels, ladder rack, wire cable tray, , cabling, cable management system, cable testing, bonding, and grounding.

8.4.3.1 MDF, IDF, AND BACKBOARDS

Performance Objective	Performance	Method of Surveillance
MDF-1	All additional or newly installed MDF, IDF and Backboards shall comply with the Installation Information Infrastructure Architecture (I3A).	Inspection

8.4.3.2 CABINETS, RACKS, AND PATCH PANELS

Performance Objective	Performance	Method of Surveillance
CRP-1	Equipment cabinets and rack mounting, dimensions, doors separation or clearances, load rating, cooling fans, spare capacities, horizontal and vertical cable management, strain relief, shall conform to UFC 3-580-1.	Inspection
CRP-2	Equipment cabinets shall have a minimum load rating of 200 pounds.	Inspection / Analysis
CRP-3	Equipment cabinets shall be equipped with a lockable, removable mesh doors.	Inspection
CRP-4	Equipment cabinets shall be equipped with factory knockouts.	Inspection
CRP-5	Equipment cabinets and racks shall have an angle support and a minimum of 46 Rack Units (RUs) and be equipped with an integrated, electrically isolated ground bar.	Inspection
CRP-6	Equipment cabinets and racks shall be black in color unless otherwise specified.	Inspection
CRP-7	Patch panels shall be provided and conform to the UFC 3-580-1.	Inspection
CRP-8	Patch panels shall be installed in, or adjacent to, the equipment racks or cabinets housing BAN equipment.	Inspection
CRP-9	TIA/EIA 568A duplex connectors on 19-inch rack-mounted panels shall be used unless otherwise directed.	Inspection
CRP-10	Fiber Optic Patch Panels (FOPPs) shall not exceed four RUs.	Inspection
CRP-11	All fiber-optic patch panels shall utilize pre-terminated tailed 12-strand closet connector housing cassette with SC duplex (unless specified otherwise) UPC ceramic connectors.	Inspection
CRP-12	Single-mode and multi-mode fiber optic cables shall be terminated on separate fiber optic patch panels.	Inspection
CRP-13	Patch panel labeling shall conform to TIA/EIA 606-A.	Inspection
CRP-14	Patch cables of varying lengths matching the patch panel they are connecting to shall be provided.	Inspection
CRP-15	Provide bend-insensitive, pre-terminated patch cords capable of being locked into place to avoid accidental disruption of services or tampering.	Inspection
CRP-16	CAT 6 copper cables shall terminate on EIA 568A 2-RU CAT 6 Certified Output Protection Protocol (COPP) Patch Panels.	Inspection
CRP-17	Copper Patch Cables: Copper patch cables shall be 4-pair, 24 American Wire Gauge (AWG) stranded UTP cable, rated for CAT6, with 8-pin modular connectors at each end.	Inspection

Performance Objective	Performance	Method of Surveillance
CRP-18	Copper patch panels shall consist of eight-position modular jacks with rear-mounted, type 110 insulation displacement connectors, category-rated for the UTP system being installed and arranged in rows or columns on 19-inch rack-mounted panels. Nineteen-inch wall-mounted panels may be utilized when necessary.	Inspection
CRP-19	Each FOFP and COPP shall have horizontal cable management either built into it or as an independent management system.	Inspection
CRP-20	All ironwork, including frames, cabinets, racks, and cable ladder racks, shall be installed IAW local seismic zone requirements and manufacturers specifications.	Inspection
CRP-21	All ironwork including frames, cabinets, racks, and cable ladder racks shall be isolated from any wall (at the anchor point), floors (at the anchor point), or ceilings with approved isolating materials.	Inspection

8.4.3.3 LADDER, WIRE CABLE TRAY, CONDUITS, EMT, PULL, AND SPLICE BOXES

Performance Objective	Performance	Method of Surveillance
LDR-1	A single tier cable ladder or wire tray system shall be provided to support for signal cabling above all equipment, cabinets, racks and the MDF. The signal cabling shall be separated from the power cables by not less than 12 inches. The power cable conduit system shall be located above the signal tier of rack. The cable ladder rack system shall not contact any surface of any equipment cabinets/racks.	Inspection
LDR-2	Ladder, wire cable tray, conduits and EMT, pull and splice boxes dimensions, separation and clearances, fill depth, headroom, fill ratios, bend radius, shall conform to the UFC 3-580-01 and I3A.	Inspection
LDR-3	Pull boxes or splice boxes shall conform to the guidance in I3A 3.6.1.3 and Article 314.28 of the National Electrical Code 2008 (NFPA 70).	Inspection
LDR-4	Twelve-inch wide ladder rack shall be used unless otherwise required.	Inspection
LDR-5	The ladder rack system shall be installed to run the full length of the room and the perimeter of the room. Each perpendicular row shall be arranged over the top of the equipment racks.	Inspection
LDR-6	Plastic or composite wire ways designed for fiber optic cables are permissible.	Inspection

Performance Objective	Performance	Method of Surveillance
LDR-7	Copper cabling shall not be installed in any dedicated fiber optic wire ways.	Inspection

8.4.3.4 BONDING AND GROUNDING

Performance Objective	Performance	Method of Surveillance
GND-1	Metal cabinets, racks, raceways, ladders, cable trays, enclosures, frames, fittings, EMT, pull boxes, FOC and Copper cable armor, Outside Plant (OSP) Point Of Entry (POE), Building Entrance Terminals (BETs) and other metal noncurrent carrying parts that are able to serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault currents likely to be imposed on them.	Inspection
GND-2	All Bonding, Grounding, Testing and Labeling shall conform to the I3A, ANSI/TIA 607-C, IEEE 1100-2005 Emerald Book, MIL-STD-419A and MIL-STD-188 124B. NFPA 70, and ANSI TIA-942, TIA/EIA-569-B, NEC Article 250 and the UFC-3-580-01.	Inspection
GND-3	A 2-hole non-twisting, irreversible, circumferential compression fittings, with a sight inspection hole lug shall be used to connect all bonding conductors to the TMGB, TGB, cabinet, rack and cable ladders.	Inspection

8.4.3.5 FIRE STOP

Performance Objective	Performance	Method of Surveillance
FSP-1	Any existing or newly created pathway thru walls, ceiling or floors that are utilized shall conform to the fire stop requirements found within the UFC 3-580-01, NFPA70, NEC, I3A.	Inspection

8.4.3.6 ENVIRONMENTAL HAZARDS

Performance Objective	Performance	Method of Surveillance
OSH-1	The contractor shall perform limited asbestos abatement in support of minor-construction work under a non-construction contract IAW with established OSHA standards.	Inspection
OSH-2	The contractor shall be expected to take the appropriate safety precaution IAW with established OSHA standards to continue to perform work in support of minor-construction work under a non-construction contract when lead-based paint is present.	Inspection

8.4.3.7 FIBER AND COPPER CABLING

Performance Objective	Performance	Method of Surveillance
FBR-1	All fiber planned for use between the CN and DN shall be characterized and if less than manufacturer's requirement the Government will be notified.	Inspection
FBR-2	Plenum cables shall be used in all plenum spaces IAW the NFPA 70, or as directed by the AHJ.	Inspection
FBR-3	OSP FOC or Copper cable that extends past the POE by 50 feet, it shall comply with the NFPA 70 Section 800.113.	Inspection
FBR-4	Cables and wiring between subsystems shall be clearly and permanently labeled and conform to the TIA/EIA-606-A.	Inspection

8.5 EXISTING NODES AND EQUIPMENT

The existing nodes and network and voice equipment is provided in Table 5 and Table 6. There may be additional equipment found during the verification site survey.

Table 5 – Existing Nodes and Equipment – MCB Quantico

Existing Nodes and Equipment									
MCB Quantico	Core 0	ADN1	ADN2	ADN3	ADN4	ADN5	ADN6	ADN7	Russel Knox
	DCO	TBS	-	-	MCU	OCS	Upshur	Weapons	-
Building	1999	24204	3255	3300	2076	2189	26100	27282	27130C
Zone #	8	7	4	5	3	2	-	9	1
PBX	Nortel/Avaya SL100/CS2100 CM6	Tellabs Voice Gateway	-	Nortel RCC2	Nortel RCC2	Tellabs T1000	-	Nortel MGk9	-
Voice Firewall	Secure Logix	-	-	-	-	-	-	-	-
Voice Mail	Nortel	-	-	-	-	-	-	-	-
Conference Bridge	Nortel	-	-	-	-	-	-	-	-
SBC									
Gateways	Avaya G450	-	-	Avaya G450	Avaya G450	-	-	Avaya G450	-
MPLS Routers	JB-CE 1	JB-CE 2	-	-	-	-	-	-	-
SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	-	SONET Node	-
DWDM									
Data Distribution Router	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	-	-	-	-
ASLAN Router	Brocade	-	-	-	-	-	-	Brocade	-
GPON OLT	Tellabs 1150	Tellabs 1150	-	-	Tellabs 1150	-	-	Tellabs 1150	-
GPON ONTs - Qty	107	38	-	-	92	-	-	16	-
Data Access Switch - Qty	64	57	35	24	30	22	-	53	2

Table 6 – Existing Nodes and Equipment – Remote Sites

Existing Nodes and Equipment – Remote Sites							
Remote Sites	INHZ	PKWY	SCPA	BAND	BRRK	WNYZ	ANNZ
	NCR	NCR	NCR	HQMC	HQMC	HQMC	HQMC
Data Distribution Router	CISCO 3750		CISCO 3750	CISCO 3750	CISCO 3750	CISCO 2811 CISCO 2911 ES2	-
ASLAN Router	-	-	-	-	-	-	-
GPON OLT	-	-	-	-	-	-	-
GPON ONTs - Qty	-	-	-	-	-	-	-
Data Access Switch - Qty	8	5	1	6	10	5	4

Unclassified/For Official Use Only

APPENDIX A – MCB QUANTICO – SITE SPECIFIC EQUIPMENT

Attachment 1 provides the MCB Quantico existing nodes and equipment per site.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188		
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.								
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC				
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM System Security Plan (SSP) and Associated Plans of Action for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A				
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-82247		5. CONTRACT REFERENCE SOW, Section 5.2		6. REQUIRING OFFICE USMC, MCSC				
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
						Draft	Final Reg Repro	
16. REMARKS Block 5: Contractor shall provide an SSP in accordance with NIST SP 800-171, indicating whether the Contractor has implemented the security requirements, plans to implement the security requirements, or that the requirement is not applicable. Attached to the SSP shall be a populated POA&M with all outstanding findings discovered during the self-audit describing compliance or non-compliance and plan of action(s) of the total list of security controls. This submission shall be upon award, on a quarterly basis or upon request. Block 7: Inspection/acceptance requirements specified elsewhere in the contract. Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Office 2200 Lester St Quantico, VA 22134 Blocks 10-13: The Contractor shall deliver the initial SSP and POA&M (and appropriate extracts thereof) quarterly, or upon Program Management Offices request. The SSP will be reviewed for acceptance by the Government Program Management Office (PMO). The PMO shall be granted full access to validate the information in the Contractor's submission on an ad hoc basis without notice or upon replacement or rotation of the Government PM. Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Any further distribution beyond what's listed will be authorized by the Program Management Office (PMO). Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591 Note: The Government Procuring Contracting Officer (PCO) does not require the formal deliverable, however the Letter of Transmittal should be sent to the PCO to document delivery notification and compliance with this CDRL. Deliver all copies via electronic media where feasible, otherwise deliver in hard copy.				COR		0	1	0
				PCO		0	0	1
				PEO/PfM ISSM		0	0	1
				APM		0	0	1
15. TOTAL				0	1	3		
G. PREPARED BY Roger Asprer <small>Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:32:57 -0400</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 07:32:18 -0400</small>		J. DATE 6/18/2020		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>	
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC	

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

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Item 12. Specify when first submittal is required.

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Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

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d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>								
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization			E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC			
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Cyber Incident Reporting for a Contractor's Internal Unclassified Information System				3. SUBTITLE N/A			
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-XXXXX (see Appendix 1)			5. CONTRACT REFERENCE SOW, Section 1.6.13		6. REQUIRING OFFICE USMC, MCSC			
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE Upon Award	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
						Draft	Final	
16. REMARKS <p>Block 4: Formatting should be in accordance with Appendix 1.</p> <p>Block 5: The Contractor shall report all Cyber Incidents or Compromise related to Controlled Unclassified Information (CUI) on the contractors system/network in accordance to DFARS clause 252.204-7012 to the Damage Assessment Office (DAMO) via the DIB-Net website (http://dibnet.dod.mil) within 72 hours.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Name 2200 Lester St Quantico, VA 22134</p> <p>Block 10-13: In addition to reporting all Cyber Incidents or Compromises as stated above, the Contractor shall also submit a Cyber Incident Damage Assessment within 72 hours event in accordance with paragraph (d)(4) of DFARS clause 252.204-7012. All information related to Cyber Incidents or Compromises, as defined in DFARS clause 252.204-7012, shall also be relayed to the Defense Cyber Crime Center [dc3.mil] within 15 calendar days of the event. Upon incident, when feasible, the hardware shall not be powered down, but segregated from the network and any Department of the Navy (DoN) CUI separated from contractor-owned information pending investigation.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Further distribution will be authorized only by the Program Management Office (PMO) Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal delivery of the Cyber Incident Report, however a Letter of Transmittal should be sent to the PCO to document formal delivery notification. Send all copies of the report via encrypted email when feasible, otherwise deliver hard copy.</p>				COR		0	1	0
				PCO		0	0	1
				PEO/PfM ISSM		0	0	1
				APfM Logistics		0	0	1
15. TOTAL				0	1	3		
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001</small>			H. DATE 6/17/2020	I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259</small>		J. DATE 6/18/2020		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>	
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC	

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

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Item 3. Enter subtitle of data item for further definition of data item (optional entry).

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A. CONTRACT LINE ITEM NO.				B. EXHIBIT			C. CATEGORY: TDP _____ TM _____ OTHER _____										
D. SYSTEM/ITEM					E. CONTRACT/PR NO.				F. CONTRACTOR								
1. DATA ITEM NO.		2. TITLE OF DATA ITEM						3. SUBTITLE									
4. AUTHORITY (Data Acquisition Document No.)					5. CONTRACT REFERENCE				6. REQUIRING OFFICE								
7. DD 250 REQ		9. DIST STATEMENT REQUIRED		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION									
8. APP CODE				11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE		b. COPIES							
										Draft		Final					
										Reg		Repro					
16. REMARKS																	
														15. TOTAL			
G. PREPARED BY					H. DATE		I. APPROVED BY					J. DATE					

17. PRICE GROUP

18. ESTIMATED
TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____
D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

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DATA ITEM DESCRIPTION

Title: Contractor's Systems Security Plan and Associated Plans of Action to Implement NIST SP 800-171 on a Contractor's Internal Unclassified Information System

Number: DI-MGMT-82247

AMSC Number: 9992

DTIC Applicable: No

Preparing Activity: OSD-SO

Applicable Forms: None

Approval Date: 20181031

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2018-049

Use/relationship: This Data Item Description (DID) contains the data content, format, and intended use of the Contractor's system security plan (or extracts thereof), to include any associated plans of action, addressing the Contractor's internal unclassified information system(s). When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on an unclassified information system that is owned, or operated by or for, the Contractor, the Contractor shall develop, document, and periodically update a system security plan(s), to include any associated plans of action, for the Contractor's internal unclassified information system in accordance with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations. Security Requirement 3.12.4 of the NIST SP 800-171 requires that system security plans describe system boundaries, system environments of operation, how security requirements are implemented, and the relationships with or connections to other systems. Security Requirement 3.12.2 of the NIST SP 800-171 requires that plans of action describe how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's unclassified information system. The system security plan (or extracts thereof) and any associated plans of action may be used by the government as input to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or operated by or for, the Contractor (i.e., Contractor's internal unclassified information system). This DID contains the information that shall be conveyed within the system security plan and any associated plans of actions for the Contractor's internal unclassified information system. There is no prescribed format or specified level of detail for how that information is conveyed. There is no requirement for the government to approve the system security plan or any associated plans of action for the Contractor's internal unclassified information system, but the government may request that the Contractor submit the system security plan (or extracts thereof), and any associated plans of action, such that the government may review the Contractor's implementation of security requirements. When requested by the government, the submitted system security plan (or extracts thereof) and any associated plans of action for the Contractor's internal unclassified internal information system may: - Demonstrate to the government the Contractor's implementation or planned implementation of the security requirements for their internal unclassified information system, or

- Be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or

operated by or for, the Contractor (i.e., Contractor's internal unclassified information system).
Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including development dates and dates of any applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format acceptable.

3. Content: The system security plan (or extracts thereof) shall include a description of system boundaries, system environments of operation, how security requirements are implemented or how organizations plan to meet the requirements, and the relationships with or connections to other systems. Any associated plans of action shall include a description how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's information system.

3.1. Cover Page: The cover page of the system security plan (or extracts thereof) and any associated plans of action shall identify the following information:

3.1.1. Title of the document (i.e., Systems Security Plan and Associated Plans of Action for [Name of Contractor's Internal Unclassified Information System])

3.1.2. Company name

3.1.3. Data Universal Numbering Systems (DUNS) Number

3.1.4. Contract number(s) or other type of agreement

3.1.5. Facility Commercial and Government Entity (CAGE) code(s)

3.1.6. System that this System Security Plan and any associated Plans of Action addresses

3.1.7. Date of latest revision

3.1.8. All appropriate distribution and classification statements/markings

3.2. System Identification: The purpose of the system security plan shall be communicated in this section, to include a description of the function/purpose of the Contractor's internal unclassified information system(s)/network(s) that is (are) addressed in the plan.

3.3. System Environment: A detailed topology narrative and graphic shall be included that clearly depicts the Contractor's internal unclassified information system boundaries, system interconnections, and key components. This does not require depicting every device, but would include an instance of operating systems in use, virtual and physical servers (e.g., file, print, web, database, application), as well as any networked workstations, firewalls, routers, switches, copiers, printers, lab equipment, etc. If components of other systems that interconnect/interface with this system need to be shown on the diagram, denote the system boundaries by referencing the security plans or names and owners of the other system(s) in the diagram. Include or reference (e.g., to an inventory database or spreadsheet) a

complete hardware and software inventory, including make/model/version and maintenance responsibility.

3.4. Security Requirements: Describe how the Contractor addresses/will address security requirements in each of the following NIST SP 800-171 security requirement families (including basic and derived requirements) for protecting covered defense information in the Contractor's systems and organizations:

- 3.4.1. Access Control (3.1.1 – 3.1.x)
- 3.4.2. Awareness and Training (3.2.1 – 3.2.x)
- 3.4.3. Audit and Accountability (3.3.1 – 3.3.x)
- 3.4.4. Configuration Management (3.4.1 – 3.4.x)
- 3.4.5. Identification and Authentication (3.5.1 – 3.5.x)
- 3.4.6. Incident Response (3.6.1 – 3.6.x)
- 3.4.7. Maintenance (3.7.1 – 3.7.x)
- 3.4.8. Media Protection (3.8.1 – 3.8.x)
- 3.4.9. Personnel Security (3.9.1 – 3.9.x)
- 3.4.10. Physical Protection (3.10.1 – 3.10.x)
- 3.4.11. Risk Assessment (3.11.1 – 3.11.x)
- 3.4.12. Security Assessment (3.12.1 – 3.12.x)
- 3.4.13. System and Communications Protection (3.13.1 – 3.13.x)
- 3.4.14. System and Information Integrity (3.14.1 – 3.14.x)

3.5. Plans of Action: In accordance with Security Requirement 3.12.2, provide any plans of action developed to address how and when the Contractor will implement any security requirements not yet implemented, identify known deficiencies and vulnerabilities in the contractor's internal unclassified information system, how and when the Contractor will correct identified deficiencies and reduce or eliminate vulnerabilities in the Contractor's system.

End of DI-MGMT-82247

DATA ITEM DESCRIPTION

Title: CONTRACTOR'S RECORD OF TIER 1 LEVEL SUPPLIERS RECEIVING/ DEVELOPING COVERED DEFENSE INFORMATION

Number: DI-SCRE-82258

AMSC Number: 10008

DTIC Applicable: No

Preparing Activity: RS

Applicable Forms: None

Approval Date: 20190313

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2019-010

Use/relationship: When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on a tier 1 level supplier's internal unclassified information system. (DFARS Clause 252.204- 7012 can be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252204.htm>)

a. This Data Item Description (DID) contains the information that is required of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information. This information will be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned or operated by, or for, the contractor (i.e. contractor's internal unclassified information system). This information will:

(1) Demonstrate to the government the Contractor's ability to restrict the dissemination of covered defense information specified in, or developed under, the contract to subcontractors that execute requirements that involve the covered defense information.

(2) Demonstrate to the government the Contractor's ability to ensure that their tier 1 level suppliers safeguard covered defense information in accordance with DFARS Clause 252.204- 7012.

b. This DID contains the format, content, and intended use information for the data deliverable resulting from the work task described in the contract.

Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including approval dates and dates of applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format is acceptable.

3. Content: The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information must include a description of how the Contractor will identify and restrict the dissemination of covered defense information to subcontractors who require the covered defense information to execute the requirements in their contract and how the Contractor will ensure that their tier 1 level suppliers safeguard covered defense information with the requirements of DFARS Clause 252.204-7012. The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include the following:

3.1. Cover Page: The cover page of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include:

DI-SCRE-82258

- a. Title of the document (i.e., [Name of Contractor] Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information
- b. Contractor's Data Universal Numbering Systems (DUNS) and Commercial and Government Entity (CAGE) code numbers
- c. Contract number(s) or other type of agreement (if available)

3.2. Tier 1 Level Supplier Information (for each Tier 1 Level Supplier receiving/developing covered defense information associated with this contract)

- a. Supplier Name
- b. Supplier contract and/or agreement number (if available)
- c. Supplier Point of Contact: name, email, and phone number
- d. Date the Tier 1 Level Supplier sub contract was put in place
- e. Number of sub contracts with Tier 1 Level Supplier
- f. Supplier contract and/or agreement contains or will contain substance of DFARS Clause 252.204-7012 Y/N
- g. Supplier contract and/or agreement contains or will contain cyber security measures and/or requirements other than those identified in DFARS Clause 252.204-7012 and National Institute of Standards and Technology (NIST) Special Publication (SP) 800- 171 Rev 1: Y/N (NIST SP 800-171 can be found at <https://csrc.nist.gov/publications/detail/sp/800-171/rev-1/final>
- h. Contractor's DUNS and CAGE numbers:

- i. Supplier has conducted or will conduct a self-assessment in accordance with NIST SP 800-171A:Y/N (NIST SP 800-171A can be found at <https://csrc.nist.gov/publications/detail/sp/800-171a/final>)
- j. Supplier System Security Plan and Associated Plans of Action in accordance with NIST SP 800-171 Rev 1 Security Requirement 3.12.4 and 3.12.2
- k. List of Supplier's Tier 1 Level Suppliers receiving and/or developing covered defense information

END OF DI-SCRE-82258

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++=	Total Ports per Site
QUAN	121	52	50	237	10	6	0		0	18	950	19,944
GPON	0							49			0	0
INHZ	4	2	6							2	30	480
PKWY	0	0		15							12	720
SCPA	0	0		3							4	144
BAND	0	0	0								0	0
BRRK	0	0	0	0						0	0	0
WNYZ	0	0	0	0						0	0	0
ANNZ	2	1		3						0	10	240
Total	127	55	56	258	10	6	0	49	0	20	1006	21,528

**These 8 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS
**These 4 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS

C9300L-24P-4X-A	127
C9300L-48P-4X-A	55
C9300-48P-A	330
Total EUB Switches	512
C9300-48P-A With NM-8X	234
C9300-48P-A With No NM	96
STACK-T1-3M	24
CAB-SPWR-150CM	24

NOTE: Total switches proposed does not currently take into account the 25% growth requirement. This estimate is based on a 1 for 1 refresh and included necessary licensing to support SDA/Multi-tenancy) We will dial this number in following the VSS which will then shed light on current utilization with projected growth factored in

Host Name	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	8 Port	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
QUAN-U03-AS-21	WS-C3560V2-24TS-S	1										4 Bldg_0711_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3HJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-14	WS-C3560V2-24TS-S	1										4 Bldg_0716_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X379	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-34	WS-C3560V2-48TS-S		1									4 Bldg_1001_Floor_0001_Room_0001_Rack_0001_	FDO1719Y0XA	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-58	WS-C3560V2-24TS-S	1										4 Bldg_1002_Floor_0001_Room_0001_Rack_0001_	FDO1437X020	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-25	WS-C4506-E		5									4 Bldg_1019_Floor_0001_Rm_Telco_Rack_0001_	SPE1730008V	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_1304_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X376	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_13201_Floor_0001_Room_Closet_Rack_0001_	FDO1437X039	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-29	WS-C3560V2-48TS-E		1									4 Bldg_15_Floor_0001_Room_0001_Rack_0001_	FDO1529X1WX	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-60	WS-C3560V2-24TS-S	1										4 Bldg_15000_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NH	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-61	WS-C3560V2-24TS-S	1										4 Bldg_15001_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-62	WS-C3560V2-24TS-S	1										4 Bldg_15002_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-64	WS-C3560V2-24TS-S	1										4 Bldg_15004_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y139	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-65	WS-C3560V2-24TS-S	1										4 Bldg_15005_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y12X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-66	WS-C3560V2-24TS-S	1										4 Bldg_15006_Floor_Basement_Room_Telco1_Rack_0001	FDO1645Y13J	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-67	WS-C3560V2-24TS-S	1										4 Bldg_15007_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y13L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-68	WS-C3560V2-24TS-S	1										4 Bldg_15008_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RW	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-69	WS-C3560V2-24TS-S	1										4 Bldg_15009_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y138	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-41	WS-C3560V2-24TS-S	1										4 Bldg_17_Floor_0001_Room_0001_Rack_0001_	FDO1437V146	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-42	WS-C3560V2-24TS-S	1										2 Bldg_17_Floor_0001_Room_0002_Rack_0001_	FDO1437V2AQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-43	WS-C4503-E			2								2 Bldg_17_Floor_2_Room_219_Rack_0001_	FXS1735Q2AB	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-27	WS-C3560V2-48TS-S		1									4 Bldg_1775_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X19P	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-82	WS-C4503-E			2								2 Bldg_1775_Floor_0001_Room_telco1_Rack_0001_	SPE1735003S	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-20	WS-C3560V2-24TS-S	1										2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1437X02V	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-21	WS-C3560V2-48TS-S		1									2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1633X19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-47	WS-C4503-E			2								4 Bldg_1776_Floor_0001_Room_Telco1_Rack_0001_	SPE171500KE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-74	WS-C4503-E			2								4 Bldg_1998_Floor_0001_Room_Telco_1_Rack_0001_	SPE134300YL	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-44	WS-C3560V2-48TS-E		1									4 Bldg_1999_Floor_0001_Room_0001_Rack_0001_	FDO1529X1X5	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-01	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC1643006Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-02	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC16430072	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-04	WS-C3560V2-48TS-S		1									4 bldg_2004_Floor_1_Room_0117_Rack_0001_	FDO1633X19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-03	WS-C4506-E				3							2 Bldg_2004_Floor_1_Room_TELCO1_Rack_1_	FXS1732Q3ZC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-38	WS-C4506-E				3							4 Bldg_2006_Floor_0001_Room_108_Rack_0001_	FXS1732Q3WE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-39	WS-C4506-E				3							2 Bldg_2006_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3ZU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-40	WS-C4506-E				3							2 Bldg_2006_Floor_3_Room_308_Rack_1_	FXS1731Q4AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-06	WS-C3560V2-48TS-S		1									2 Bldg_2006_Floor_Basement_Room_B014_Rack_1_	FDO1633X1BR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-21	WS-C4506-E				3							4 Bldg_2008_Floor_0001_Room_Telco1_Rack_0003_	FXS1732Q3CN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-19	WS-C4506-E				3							2 Bldg_2008_Floor_0003_Room_0003_Rack_0001_	SPE173000A4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-20	WS-C4506-E				3							2 Bldg_2008_Floor_2_Room_231_Rack_2_	SPE173000C9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-07	WS-C4506-E				3							4 Bldg_2009_Floor_0002_Room_0002_Rack_0001_	FXS1732Q406	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-08	WS-C4506-E				3							2 Bldg_2009_Floor_3_Room_332_Rack_1_	SPE172801YN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-31	WS-C4506-E				3							4 Bldg_2010_Floor_0002_Rm_211_Rack_0001_	SPE17300087	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-32	WS-C4506-E											4 Bldg_2011_Floor_0001_Rm_116_Rack_0002_	SPE17300096	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-21	WS-C3560V2-48TS-E		1									4 Bldg_2013_Floor_0001_Room_0001_Rack_0001_	FDO1529X1XV	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-20	WS-C3560V2-24TS-S	1										2 Bldg_2013_Floor_1_Room_BreakRm_Rack_1_	FDO1437V110	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-22	WS-C3560V2-48TS-E		1									4 Bldg_2014_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1XG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-70	WS-C3560V2-48PS-S		1									4 Bldg_2015_Floor_0001_Rm_Telco1_Rack_0001_	FDO1644Y2C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-09	WS-C3560V2-48TS-S		1									4 Bldg_2032_Floor_0001_Room_000_Rack_001_	FDO1723Y2D5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-26	WS-C4506-E				3							2 Bldg_2032_Floor_0001_Room_Telco1_Rack_0001_	SPE173000B5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-24	WS-C3560V2-48TS-S		1									2 Bldg_2032_Floor_0001_Room_Telco2_Rack_0001_	FDO1633X1A2	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-01	WS-C4506-E				3							4 Bldg_2034_Floor_0001_Room_Telco1_Rack_0001_	SPE1728020L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-02	WS-C4506-E				3							2 Bldg_2034_Floor_1_Rm_TelcoSouth_Rack_3_	SPE17280208	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-10	WS-C3560V2-48TS-S		1									4 Bldg_2043_Floor_1_Rm_124_Rack_1_	FDO1636Y15K	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-11	WS-C4503-E			2								2 Bldg_2043_Floor_1_Room_EMB_Rack_1_	SPE1343002Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-12	WS-C4506-E				3							2 Bldg_2043_Floor_1_Room_Telco_1_Rack_0002_	FXS1731Q4AR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_2045_Floor_0001_Room_0001_Rack_0001_	FDO1437V125	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-17	WS-C4506-E				3							4 Bldg_2048_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3W0	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-03	WS-C4506-E				3							4 Bldg_2076_Floor_0001_Room_0001_Rack_0001_	FXS1732Q411	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-02	WS-C4506-E				3							2 Bldg_2076_Floor_0001_Room_0006_Rack_0001_	FXS1732Q410	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-01	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PK	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-02	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-04	WS-C4506-E				3							2 Bldg_2076_Floor_0002_Room_0002_Rack_0001_	FXS1732Q3ZG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-35	WS-C3560V2-48TS-E		1									4 Bldg_2077_Floor_0002_Room_0002_Rack_0001_	FDO1529X1X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-37	WS-C3560V2-48TS-E		1									2 Bldg_2077_Floor_0002_Room_0210_Rack_0001_	FDO1529X263	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-36	WS-C4506-E				3							2 Bldg_2077_Floor_Basement_Rm_B28_Rack_0001_	FXS1732Q3WC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-17	WS-C4506-E				3							4 Bldg_2079_Floor_1_Rm_138_Rack_1_	FXS1732Q412	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-18	WS-C4506-E				3							2 Bldg_2079_Floor_2_Rm_226_Rack_1_	SPE17280245	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-81	WS-C3560V2-24TS-S	1										4 bldg_2080_Floor_1_Room_0001_Rack_0001_	FDO1437V291	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-32	WS-C4503-E			2								4 Bldg_2082_Floor_0001_Room_115_Rack_0001_	SPE171500KJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-26	WS-C3750G-48PS-S		1									2 Bldg_2082_Floor_0001_Room_B12_Rack_0001_	FOC1109Y2F1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-40	WS-C3750X-48P-S			2								4 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1719H3KR,FDO1713Z0RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-43	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1720R1HM,FDO1608K119	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-41	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0002_Room_Telco2_Rack_0001_	FDO1720R1WE,FDO1719H3L1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-42	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0003_Room_Telco3_Rack_0001_	FDO1719H3KB,FDO1722P0HQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-07	WS-C3560V2-48TS-E		1									4 Bldg_2100_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WP	NCR QUAN Nodes	NCR	QUAN

QUAN-U04-AS-08	WS-C3560V2-48TS-S		1							2	Bldg_2100_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X190	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-43	WS-C4503-E			2						4	Bldg_2105_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-27	WS-C3560V2-24TS-S	1								2	Bldg_2105_Floor_0002_Room_Telco2_Rack_0001_	FDO1437V10K	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-49	WS-C3560V2-24TS-S	1								4	Bldg_2105T_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-12	WS-C3560V2-24TS-S	1								4	Bldg_2106_Floor_0001_Room_0164_Rack_1_	FDO1438X004	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-51	WS-C3560V2-24TS-S	1								4	Bldg_2110_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y191	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-11	WS-C3560V2-24TS-S	1								4	Bldg_2117_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X36H	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-15	WS-C3560V2-24TS-S	1								4	Bldg_2118_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V11J	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-01	WS-C4506-E				3					4	Bldg_2121_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3W6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-60	WS-C3560V2-24TS-S	1								4	Bldg_2122_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y13Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-61	WS-C3560V2-24TS-S	1								4	Bldg_2123_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y121	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-44	WS-C3560V2-24TS-S	1								4	Bldg_2124_Floor_0001_Room_Teco1_Rack_0001_	FDO1438X05W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-84	WS-C3560V2-24TS-S	1								4	bldg_2132_Floor_1_Room_0119_Rack_0001	FDO1437X3DS	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_2177_Floor_1_Room_1_Rack_Telco1_	FDO1645Y13Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-08	WS-C3560V2-24TS-S	1								4	Bldg_2179_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X01L	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_2187_Floor_0001_Room_Teco2_Rack_0001_	FDO1437X01Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-03	WS-C3560V2-24TS-S	1								2	Bldg_2187_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X3LL	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-22	WS-C3560V2-24TS-S	1								4	Bldg_2189_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y14Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-01	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0001_	SAL1633KRTA	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-02	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0004_	SAL17236L1N	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-07	WS-C4506-E				3					4	Bldg_2189N_Floor_0001_Room_Telco1_Rack_0001_	SPE173000DQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-07	WS-C4506-E			2						4	Bldg_2200_Floor_0001_Room_153A_Rack_0001_	FXS1732Q408	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-06	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_B-wing_Rack_0001_	SPE1343012Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-05	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_C-wing_Rack_0001_	SPE1343300VS	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-02	WS-C4506-E				3					2	Bldg_2200_Floor_0001_Room_Telco1_Rack_0003_	FOX1338GZZK	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-08	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_207_Rack_0001_	FOX1338GWXX	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-09	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_229_Rack_0001_	FXS1732Q3Z1	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-10	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_252_Rack_0001_	FOX1338GZL	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-03	WS-C4503-E		2							2	Bldg_2200_Floor_000B_Room_B20B_Rack_0002_	SPE1343012R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-28	WS-C6506-E		2							2	Bldg_2200_Floor_000B_Room_B65_Rack_0001_	SAL172264NQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-04	WS-C4503-E		2							2	Bldg_2200_Floor_Basement_Room_A-wing_Rack_0001_	SPE1340004Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-12	WS-C4506-E				3					4	Bldg_2201A_Floor_0001_Room_110_Rack_0001_	FXS1732Q3CV	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-01	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172369MW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-02	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172264PD	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-20	WS-C4506-E				3					4	Bldg_2202_Floor_0001_Room_105_Rack_0001_	FXS1732Q3W5	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-22	WS-C4506-E				3					2	Bldg_2202_Floor_0002_Room_0210_Rack_0001_	SPE173000BF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-18	WS-C4506-E				3					2	Bldg_2202_Floor_000B_Room_0001_Rack_0001_	FXS1732Q3VQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-13	WS-C4506-E				3					4	Bldg_2203_Floor_1_Room_Telco1_Rack_1_	FOX1335GRHE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-32	WS-C4503-E		2							4	Bldg_2203A_Floor_0001_Room_0001_Rack_0001_	SPE171500KF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-26	WS-C3560V2-48TS-E		1							4	Bldg_2204_Floor_0001_Room_114_Rack_0001_	FDO1529X1WQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-24	WS-C4503-E		2							2	Bldg_2204_Floor_Basement_Room_B17_Rack_0001_	FXS1735Q2AF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-16	WS-C4506-E				3					4	Bldg_2207_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3WH	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-15	WS-C3560V2-48TS-E		1							2	Bldg_2207_Floor_0002_Room_0002_Rack_0002_	FDO1529X1XU	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-14	WS-C4506-E				3					2	Bldg_2207_Floor_000B_Room_B05_Rack_0001_	FOX1338GZE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-34	WS-C4503-E		2							4	Bldg_2208_Floor_1_Room_Telco1_Rack_1_	FXS1733Q0HZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-31	WS-C4506-E				3					4	Bldg_2209T_Floor_1_Room_Telco1_Rack_1_	SPE1728024H	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-29	WS-C4506-E				3					4	Bldg_2210_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-30	WS-C4506-E				3					2	Bldg_2210_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3WW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_2247_Floor_0001_Room_0001_Rack_0001_	FDO1438X02R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-21	WS-C3560V2-24TS-S	1								4	Bldg_2248_Floor_0001_Room_0001_Rack_0001_	FDO1437X02Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-33	WS-C3560V2-24TS-S	1								4	Bldg_2249_Floor_0001_Room_0001_Rack_0001_	FDO1437V12W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-72	WS-C4506-E				3					4	Bldg_2300_Floor_1_Room_Telco1_Rack_1_	FXS1732Q3XD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-71	WS-C4506-E				3					4	Bldg_2300A_Floor_1_Room_Telco1_Rack_1_	FXS1732Q0DN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-73	WS-C4506-E				3					4	Bldg_2300B_Floor_1_Room_Telco1_Rack_1_	SPE173000C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-10	WS-C3560V2-24TS-S	1								4	Bldg_2321_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-64	WS-C3560V2-24TS-S	1								4	Bldg_23402_Floor_1_Room_1_Rack_1_	FDO1645Y13A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-41	WS-C3560V2-24TS-S	1								4	Bldg_24004_Floor_1_Room_Telco_Rack_1_	FDO1438X01H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-58	WS-C3560V2-24TS-S	1								4	Bldg_24005_Floor_1_Room_0001_Rack_1_	FDO1437X3GR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_24006_Floor_0001_Room_telco10_Rack_0001_	FDO1437V0YJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-75	WS-C3560V2-24TS-S	1								4	Bldg_24008_Floor_1_Room_0001_Rack_1_	FDO1437X3GZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-10	WS-C4506-E				3					4	Bldg_24009_Floor_0001_Room_0152_Rack_0001_	FXS1732Q3WY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-42	WS-C3560V2-48TS-S		1							4	Bldg_24015_Floor_1_Room_Telco1_Rack_1_	FDO1633X18D	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-44	WS-C3560V2-48TS-S		1							4	Bldg_24017_Floor_0001_Room_telco1_Rack_0001_	FDO1633X1B0	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-47	WS-C3560V2-24TS-S	1								4	Bldg_24018_Floor_0001_Room_0001_Rack_0001_	FDO1436X3LR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-28	WS-C3560V2-24TS-S	1								4	Bldg_24114_Floor_0001_Room_0000_Rack_0000_	FDO1704Y2SS	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-01	WS-C3560V2-24TS-S	1								4	Bldg_24142_Floor_0001_Room_Office_Rack_0001_	FDO1437V12H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_24144_Floor_0001_Room_0001_Rack_0001_	FDO1436X22U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-30	WS-C3560V2-48TS-S		1							4	Bldg_24157_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-34	WS-C4506-E				3					4	Bldg_24164_Floor_0001_Room_0169_Rack_0001_	FXS1646Q40C	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-11	WS-C4506-E				3					2	Bldg_24164_Floor_0001_Room_117_Rack_0001_	SPE17300085	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-35	WS-C4506-E				3					2	Bldg_24164_Floor_0002_Room_0229_Rack_0001_	FXS1647Q04E	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-07	WS-C3560V2-24TS-S	1								4	Bldg_24180_Floor_0001_Room_0001_Rack_0001_	FDO1436X3KV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-09	WS-C3560V2-24TS-S	1								4	Bldg_24191_Floor_0001_Room_0001_Rack_0001_	FDO1438X018	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-50	WS-C3560V2-48TS-S		1							4	Bldg_24192_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X183	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-49	WS-C3560V2-48TS-S		1							2	Bldg_24192_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19L	NCR QUAN Nodes	NCR	QUAN

QUAN-U07-AS-48	WS-C3560V2-48TS-S		1							4	Bldg_24193_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-26	WS-C3560V2-24TS-S	1								4	Bldg_24193A_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-43	WS-C3560V2-48TS-S		1							4	Bldg_24194_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-03	WS-C3560V2-24TS-S	1								4	Bldg_24195_Floor_0001_Room_0001_Rack_0001_	FDO1645Y199	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-36	WS-C3560V2-24TS-S	1								4	Bldg_24196_Floor_1_Room_Telco1_Rack_1_	FDO1437V28G	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-51	WS-C3560V2-24TS-S	1								4	Bldg_24197_Floor_0001_Room_telco1_Rack_0001_	FDO1437X3DK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-79	WS-C3560V2-48TS-E		1							4	bldg_24200_Floor_1_Room_0149_Rack_0001	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-08	WS-C4506-E				3					4	Bldg_24202_Floor_1_Room_143_Rack_1_	FXS1731Q4AV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-38	WS-C3560V2-24TS-S	1								4	Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y12V	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-01	WS-C6506-E							1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL172369MY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-02	WS-C6506-E							1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL1718474L	NCR QUAN Nodes	NCR	QUAN
DR								1			Bldg_26100				
DR								1			Bldg_26100				
QUAN-U07-AS-61	WS-C4506-E				3					4	Bldg_26100_Floor_0001_Room_Telco1_Rack_0001_	SPE173000D1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-62	WS-C3750X-24T-S	1								2	Bldg_26100_Floor_1_Room_RWC1_Rack_1_	FDO1746Z0JL	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-63	WS-C3750X-24T-S	1								2	Bldg_26100_Floor_1_Room_RWC2_Rack_1_	FDO1745P23K	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-71	WS-C3560V2-24TS-S	1								4	Bldg_26101_Floor_0001_Room_0000_Rack_0001	FDO1710Y0N2	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-68	WS-C3750X-24T-S	1								4	Bldg_26133_Floor_1_Room_Telco1_Rack_1_	FDO1746H070	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-70	WS-C3560V2-24TS-S	1								4	Bldg_26143_Floor_1_Room_Telco1_Rack_1_	FDO1437X3DV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-69	WS-C3560V2-24TS-S	1								4	Bldg_26144_Floor_1_Room_Telco1_Rack_1_	FDO1438X05A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-65	WS-C3750X-24T-S	1								4	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746H0ME	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-66	WS-C3750X-24T-S	1								2	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746P0Y9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-67	WS-C3750X-24T-S	1								4	Bldg_2650_Floor_1_Room_1_Rack_1_	FDO1746H0MK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_27001_Floor_0001_Room_0001_Rack_0001_	FDO1437V0W4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-15	WS-C3560V2-24TS-S	1								4	Bldg_27007_Floor_0001_Room_0001_Rack_0001_	FDO1438X03L	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-52	WS-C3560G-24TS-S	1								4	Bldg_27028T_Floor_0001_Room_Telco1_Rack_01_	FOC1623V0TW	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-18	WS-C3560V2-24TS-S	1								4	Bldg_27046_Floor_0001_Room_0001_Rack_0001_	FDO1437V0ZB	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-25	WS-C3560V2-24TS-S	1								4	Bldg_27067_Floor_0001_Room_0001_Rack_0001_	FDO1438X02T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-29	WS-C3560V2-24TS-S	1								4	Bldg_27200_Floor_1_Room_Telco1_Rack_1_	FDO1437X380	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-22	WS-C3560V2-24TS-S	1								4	Bldg_27210_Floor_0001_Room_604_Rack_0001_	FDO1437V0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-21	WS-C4506-E				3					4	Bldg_27211_Floor_0001_Room_S4_Rack_0001_	SPE173000B9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-24	WS-C3560V2-24TS-S	1								4	Bldg_27231_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X015	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-20	WS-C3560V2-48TS-S		1							4	Bldg_27241_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X185	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-39	WS-C3560V2-48TS-E		1							4	Bldg_27250_Floor_0001_Rm_Telco1_Rack_0001_	FDO1529X1XH	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-45	WS-C3560V2-24TS-S	1								2	Bldg_27250_Floor_0001_Room_telco1_Rack_0001_	FDO1437V22T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-46	WS-C3560V2-24TS-S	1								4	Bldg_27251_Floor_0001_Room_0001_Rack_0001_	FDO1437V0X3	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-23	WS-C3560V2-24TS-S	1								4	Bldg_27270_Floor_0001_Room_0001_Rack_0001_	FDO1437V272	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-32	WS-C3560V2-48TS-E		1							4	Bldg_27275_Floor_2_Room_206_Rack_2_	FDO1528X0CG	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-12	WS-C3560V2-48TS-S		1							4	Bldg_27277_Floor_2_Room_206_Rack_2_	FDO1633X1AD	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-40	WS-C3560V2-24TS-S	1								4	Bldg_27279_Floor_0001_Room_telco10_Rack_0001_	FDO1438X036	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-17	WS-C4506-E				3					4	Bldg_27281_Floor_0001_Rm_Telco1_Rack_0001_	FXS1732Q3EE	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-14	WS-C6506-E				3					4	Bldg_27282_Floor_0001_Room_0001_Rack_0001_	SAL172369MS	NCR QUAN Nodes	NCR	QUAN
DR								1			Bldg_27282				
DR								1			Bldg_27282				
QUAN-U07-AS-27	WS-C3560V2-48TS-E		1							4	Bldg_27290TX_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X1P5	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-13	WS-C3560V2-24TS-S	1								4	Bldg_27400_Floor_0001_Room_0001_Rack_0001_	FDO1437X356	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-56	WS-C4506-E				3					4	Bldg_27402_Floor_0001_Room_0001_Rack_0008	FOX1614GXY4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-57	WS-C4506-E				3					2	Bldg_27402_Floor_0001_Room_0001_Rack_0008	SPE154901XJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-55	WS-C3560V2-48TS-S		1							2	Bldg_27402_Floor_0001_Room_Telco1_Rack_0001	FDO1633X1AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-05	WS-C3850-48U					6				4	BLDG_2741_FLR_02_RM_209_RN2_U30	FCW1951DOBJ,FCW1951COEY,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U07-AS-54	WS-C3560V2-24TS-S	De-Scope 1							De-Scope 4	4	Bldg_27410_Floor_0001_Room_135_Rack_0001_	FDO1437V12M	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-01	WS-C3850-48U						De-Scope 7		De-Scope 2		BLDG_27410_FLR_01_RM_129_RN2_U12	FOC1951X0S4,FOC1951U0R1,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-06	WS-C3850-48U		De-Scope 1						De-Scope 2		BLDG_27410_FLR_01_RM_135_R1_U39	FCW1951D10R	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-03	WS-C3850-48U						De-Scope 7		De-Scope 2		BLDG_27410_FLR_01_RM_141_RN3_U26B	FOC1938X1K7,FCW1941C01R,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-02	WS-C3850-48U						De-Scope 6		De-Scope 2		BLDG_27410_FLR_01_RM_145_RACK_RN1_U17	FOC1951U0QV,FOC1951U0G4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-02	WS-C3560V2-24TS-S	1								4	Bldg_28000_Floor_1_Room_Telco1_Rack_1_	FDO1645Y18M	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-25	WS-C3560V2-24TS-S	1								4	Bldg_28009_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-30	WS-C3560V2-24TS-S	1								4	Bldg_3015_Floor_0001_Room_0001_Rack_0001	FDO1645Y19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-31	WS-C3560V2-24TS-S	1								4	Bldg_3015A_Floor_0001_Room_0001_Rack_0001	FDO1437X00W	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-55	WS-C3560V2-48TS-S		1							4	Bldg_3017_Floor_1_Room_Telco1_Rack_1_	FDO1738Y2P1	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-52	WS-C3560V2-48TS-S		1							4	Bldg_3019_Floor_0001_Room_Telco1_Rack_0001	FDO1633X19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-30	WS-C4506-E				3					4	Bldg_3025_Floor_0001_Rm_Telco1_Rack_0001_	SPE1728024S	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-13	WS-C3560V2-24TS-S	1								4	Bldg_3032_Floor_0001_Room_Telco1_Rack_0001	FDO1437X3JT	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-24	WS-C3560V2-24TS-S	1								4	Bldg_3045_Floor_0001_Room_0001_Rack_0001	FDO1437X02W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-22	WS-C3560V2-48TS-S		1							4	Bldg_3049_Floor_0001_Room_#0001_Rack_0001	FDO1709Y1TR	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-11	WS-C3560V2-24TS-S	1								4	Bldg_3065_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XT	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-44	WS-C3560V2-24TS-S	1								4	Bldg_3076_Floor_0001_Room_0001_Rack_0001	FDO1437V231	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-36	WS-C3560V2-24TS-S	1								4	Bldg_3077_Floor_0001_Room_0001_Rack_0001	FDO1645Y1AE	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-37	WS-C4503-E				2					2	Bldg_3077_Floor_0002_Room_LAN1_Rack_0001	FXS1733Q0HG	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-11	WS-C4506-E				3					4	Bldg_3078_Floor_0001_Room_115_Rack_0001	FXS1732Q0DL	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-08	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0Z2	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-09	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-18	WS-C3560-48TS-S		1							2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0ZJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-10	WS-C3560V2-24TS-S	1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1438X022	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-06	WS-C3750G-24TS-E1U	1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FOC1006Z3K2	NCR QUAN Nodes	NCR	QUAN

QUAN-U03-AS-35	WS-C3560V2-48TS-S		1							4	Bldg_3081T_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X19W	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-39	WS-C3560V2-24TS-S	1								4	Bldg_3081T2_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-25	WS-C3560V2-48TS-E		1							4	Bldg_3083_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WT	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-27	WS-C4503-E			2						4	Bldg_3083A_Floor_1_Room_102_Rack_1_	FXS1733Q0HE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-11	WS-C4506-E				3					4	Bldg_3086_Floor_0001_Room_COMPRM_Rack_0001_	SPE173000C8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-35	WS-C4506-E				3					4	Bldg_3087_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3XM	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_3088_Floor_01_Room_Telco_01_B-Wing_Rack_01_	FDO1437V0Y5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-48	WS-C3560V2-24TS-S	1								4	Bldg_3089_Floor_0001_Room_0001_Rack_0001_	FDO1437V0Y3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_3090_Floor_1_Room_Telco_1_Rack_1_	FDO1645Y19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-20	WS-C4503-E			2						4	Bldg_3094_Floor_0001_Room_Telco1_Rack_0001_	FXS1733Q0J8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-15	WS-C3560V2-48TS-S		1							4	Bldg_3094T_Floor_1_Room_Telco_1_Rack_1_	FDO1633X1A9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-45	WS-C3560V2-24TS-S	1								4	Bldg_3095_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V0XF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-03	WS-C4503-E			2						4	Bldg_3097_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-14	WS-C3560G-24TS-S	1								4	Bldg_3098_Floor_0001_Room_105_BreakFix	FOC1623V0UF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-44	WS-C4506-E				3					2	Bldg_3098_Floor_0001_Room_Telco1_Rack_0001_	SPE172801Z0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-53	WS-C4503-E			2						2	Bldg_3098_Floor_0002_Room_Telco2_Rack_0001_	FXS1735Q2E8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-16	WS-C3560G-24PS-E	1								2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3M8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-17	WS-C3560G-24PS-E	1								2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3JW	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-15	WS-C3560G-24TS-E	1								2	Bldg_3098_Floor_1_Room_Server	FOC1431Y4V9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-01	WS-C3560V2-24TS-S	1								4	Bldg_3099_Floor_01_Room_Telco_01_Rack_01_	FDO1437X02G	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-11	WS-C3560V2-48TS-S		1							4	Bldg_3100_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-02	WS-C3560V2-24TS-S	1								4	Bldg_3101_Floor_1_Room_Telco1_Rack_1_	FDO1710Y0PC	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-07	WS-C3560V2-24TS-S	1								4	Bldg_3169_Floor_0001_Room_0001_Rack_0001_	FDO1437V0XY	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-05	WS-C4506-E				3					4	Bldg_3186_Floor_1_Room_NB33_Rack_Telco1_	SPE172801YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-02	WS-C3560V2-24TS-S	1								4	Bldg_3202_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XE	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-09	WS-C3560V2-24TS-S	1								4	Bldg_3209_Floor_1_Room_Telco_Rack_1_	FDO1704Y2X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-16	WS-C3560V2-48TS-S		1							4	Bldg_3228_Floor_2_Room_Telco_1_Rack_1_	FDO1633X19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-50	WS-C4506-E				3					4	Bldg_3229_Floor_0001_Room_StagingRM_Rack_0004_	FOX1338GVVVK	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-16	WS-C3560V2-24TS-S	1								4	Bldg_3230_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V24U	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-35	WS-C3560V2-24TS-S	1								4	Bldg_3232_Floor_1_Room_Telco_1_Rack_0001_	FDO1645Y14W	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-17	WS-C3560V2-24TS-S	1								4	Bldg_3240_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X38R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-39	WS-C4506-E				3					4	Bldg_3250_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-38	WS-C4506-E				3					2	Bldg_3250_Floor_Basement_Room_CommCtr_Rack_0001_	FXS1732Q416	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-54	WS-C4503-E			2						4	Bldg_3250TRAILER_Floor_01_Room_01_Rack_01_	FXS1718Q1BJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-32	WS-C4506-E				3					4	Bldg_3252_Floor_0001_Room_Telco1_Rack_0001_	SPE1730008T	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-28	WS-C3560V2-24TS-S	1								2	Bldg_3252_Floor_1_Room_Shop51_Rack_1_	FDO1720Y2HA	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-13	WS-C4506-E				3					4	Bldg_3255_Floor_0001_Room_0001_Rack_0001_	SPE1730008W	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-24	WS-C3560G-24TS-E	1								2	Bldg_3255_Floor_0001_Room_0001_Rack_0003_	FOC1426WOP4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-01	WS-C6506-E										Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1630HP53	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-02	WS-C6506-E										Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1633KRTF	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U03-AS-01	WS-C4506-E				3					2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FOX1332G2VD	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-01	WS-C6506-E				3					2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0010_	SAL17173LBA	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-05	WS-C6506-E				3					2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1633KRT4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-06	WS-C6506-E				3					2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1630HP5A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-07	WS-C6509-E					5				2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7H	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-08	WS-C6509-E					5				2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-02	WS-C6506-E				3					2	Bldg_3255_Floor_0001_Room_SF_Rack_0010_	SAL172264PL	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-AS-05	WS-C4506-E				3					2	Bldg_3255_Floor_0002_Room_Telco1_Rack_0001_	FXS1732Q3W3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-06	WS-C4503-E			2						2	Bldg_3255_Floor_001_Room_ServerRm_Rack_163_	SPE151601B7	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-22	WS-C6506-E				3					2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1633KRTK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-23	WS-C6506-E				3					2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1630HP58	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-03	WS-C6506-E				3					2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRTF	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-04	WS-C6506-E				3					2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRT6	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-DR-01	WS-C6506-E							1		2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1633KRTJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-DR-02	WS-C6506-E							1		2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1630HP4Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-07	WS-C3850-48U				3					2	BLDG_3255_FLR_01_RM_102_RN3_U18	FCW1951COE6,FCW1951DOLB	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-18	WS-C4506-E				De-Scope 3				De-Scope 4	Bldg_3280_Floor_0001_Room_telco1_Rack_0001_	SPE173000D9	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-19	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0001_Room_Telco1_Rack_0001_	SPE173000EC	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-06	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0002_Rm_2East_Rack_0001_	FOX1338HAEJ	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-03	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0003_Rm_3West_Rack_0001_	FOX1338GWXD	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-07	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0003_Rm_SF_Rack_0001_	FOX1338GZZJ	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-10	WS-C4503-E			De-Scope 2					De-Scope 2	Bldg_3280_Floor_0003_Room_SF_Rack_0001_	FXS1735Q2EY	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-04	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0004_Rm_4West_Rack_0001_	FOX1338GZY8	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-05	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_0005_Rm_5West_Rack_0001_	FOX1338GWXZ	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-01	WS-C4503-E			De-Scope 2					De-Scope 2	Bldg_3280_Floor_1West_Room_Telco1_Rack_0002_	FXS1733Q0S2	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-08	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_4_Rm_4East_Rack_0001_	FOX1338G3LZ	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-09	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3280_Floor_5_Rm_5East_Rack_0001_	FOX1338G3KA	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-12	WS-C4506-E				De-Scope 3				De-Scope 4	Bldg_3300_Floor_0001_Rm_119_Rack_0001_	SPE1728024Q	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-13	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3300_Floor_0001_Rm_131_Rack_0001_	SPE173000C7	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-DR-01	WS-C6506-E							1		Bldg_3300_Floor_0001_Room_119_Rack_0001_	SAL171635U5	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-DR-02	WS-C6506-E							1		Bldg_3300_Floor_0001_Room_119_Rack_0003_	SAL172264NP	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-14	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3300_Floor_2_Rm_208_Rack_0001_	SPE173000F1	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-15	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3300_Floor_2_Rm_216_Rack_0001_	FXS1732Q3ZJ	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-22	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3300_Floor_2_Rm_242B_Rack_0001_	SPE1730009U	NCR QUAN Nodes	NCR	QUAN	
QUAN-U05-AS-17	WS-C4506-E				De-Scope 3				De-Scope 2	Bldg_3300_Floor_3_Rm_312_Rack_0001_	FXS1732Q3DT	NCR QUAN Nodes	NCR	QUAN	

QUAN-U05-AS-16	WS-C4506-E				De-Scope 3						De-Scope 2	Bldg_3300_Floor_3_Rm_322_Rack_0001_	SPE173000BY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-90	WS-C3560V2-24TS-S	1										4 Bldg_3313_Floor_01_Room_Teco#_Rack_1_	FDO1437V27K	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_3400_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03J	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-29	WS-C3560V2-24TS-S	1										4 Bldg_3500_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03R	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-14	WS-C4506-E					3						4 Bldg_5001_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3D9	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-13	WS-C4506-E					3						4 Bldg_5002_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_505_Floor_0001_Room_0002_Rack_0001_	FDO1437V11T	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-54	WS-C4503-E				2							4 Bldg_5170_Floor_1_Rm_Telco1_Rack_0001_	FXS1735Q2DD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-52	WS-C3560V2-24TS-S	1										4 Bldg_5172_Floor_0001_Room_0001_Rack_0001_	FDO1643Y2R8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-27	WS-C3560V2-24TS-S	1										4 bldg_658_Floor_1_Room_0001_Rack_0001	FDO1437X02B	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-28	WS-C3560V2-24TS-S	1										4 bldg_660_Floor_1_Room_0001_Rack_0001	FDO1437V26X	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-19	WS-C3560V2-24TS-S	1										4 Bldg_69_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V13V	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_7_Floor_0001_Room_0001_Rack_0001_	FDO1437X35U	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-30	WS-C3560V2-48TS-E		1									4 Bldg_711A_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_711C_Floor_Telco1_Room_0001_Rack_0001_	FDO1645Y198	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-22	WS-C3560V2-24TS-S	1										2 Bldg_711C_Floor_Telco1_Room_COMM_Rack_0001_	FDO1645Y1A8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-12	WS-C3560V2-48TS-S		1									4 Bldg_715_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1B1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_B5-9_Floor_0001_Room_0001_Rack_0001_	FDO1437X38P	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-GSAS-01	WS-C3850-48U					3						4 BLDG_GREENSPRINGS_FLR_01_RM_10_RN1_U9	FCW1951F0ND,FOC1951U0G3	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-05	WS-C3560V2-24TS-S	1										4 Bldg_QTRS_C_Floor_Basement_Room_Telco1_Rack_1_	FDO1645Y190	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-55	WS-C3560V2-24TS-S	1										4 Bldg_QTRS1_Floor_BASEMENT_Room_0000_Rack_0001_	FDO1437X035	NCR QUAN Nodes	NCR	QUAN
DR										1		Russel Knox				
DR										1		Russel Knox				
	Total	121	52	50	237	10	6	0	0	18	950					
** Row #374 location needs to be identified prior to placing in-scope for this effort. For now, we'll identify as a "maybe" / Orange until post VSS.																
QUAN-L00-AS-01	WS-C3750G-24TS-E1U												FOC0951Y3XY	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-25	WS-C3750G-24TS-E1U												FOC1224Z19C	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-CB-01	WS-C3750G-48TS-E												FHG1413R0AZ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U09-GSAS-02	WS-C3850-48U												FOC1951U1LV	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-AS-02	ex4200-48t												BP0210344659	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-AS-03	ex8208												CA1710100238	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-11a	Nexus 3132QV												FOC2120R35P	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-11b	Nexus 3132QV												FOC2120R1DZ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-01	Nexus9000 C9332PQ												FDO21291CS0	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-02	Nexus9000 C9332PQ												FDO21291CQK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-OS-01	WS-C3750G-48TS-E												FHG1413R0B1	MCEN INS Legacy Nodes	MCEN	INS
QUAN-UDZ-IS-01	WS-C3850-48XS												FOC2035Z1HT	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UDZ-OS-01	WS-C3850-48XS												FOC2035Z1HX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-04	WS-C4500X-32												JAE203400MW	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-DH-01	3745											Bldg_1999_Floor_0001_Rm_0001_Rack_0001_	FTX1012A398	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DH-02	3745											Bldg_1999_Floor_0001_Room_MDF_Rack_0001_	FTX1110A2C0	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-CO-01	CISCO2921/K9											Bldg_2008_Floor_0002_Rm_ServerRoom_Rack_001	FTX1748AJ5X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-03	888											Bldg_2046_Floor_0001_Rm_Telco1_Rack_0001_	FTX1642856Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-19	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201NJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-24	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201N9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-12	888											Bldg_2100A_Floor_0001_Room_0001_Rack_0001_	FTX1642854U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-11	888											Bldg_24101_Floor_0001_Room_Telco1_Rack_0001_	FTX1642855Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-13	888											Bldg_24162_Floor_1_Room_Telco1_Rack_1_	FTX1642856M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-02	3745											Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FTX1012A38X	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-01	3745											Bldg_24204_Floor_0001_Room_105_Rack_0006	FTX1012A38Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-01	888											Bldg_27005_Floor_0001_Room_Telco1_Rack_0001_	FTX1642856J	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-60	WS-C2960-8TC-S								1			Bldg_27028_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-03	CISCO2911/K9											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX1644AKYW	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-03	SM-ES2-24											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX16403G1P	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-15	888											Bldg_27219_Floor_2_Room_219_Rack_1_	FTX1642854Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-02	CISCO2911/K9											Bldg_27263_Floor_0001_Room_0001_Rack_0001_	FTX1652A00M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-02	SM-ES2-24											Bldg_27263_Floor_0001_Room_Telco1_Rack_001_	FOC16507USN	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-04	CISCO2911/K9											BLDG_27410_FLR_01_RM_182_RN2_U30	FTX1644AKXN	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-13	WS-C2960-8TC-S								1			Bldg_3084A_Floor_1_Room_Telco_Rack_1_	FOC1512V375	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-27	WS-C2960-8TC-S								1			Bldg_3085B_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G0	NCR QUAN Nodes	NCR	QUAN
QUAN-U00-IS-04	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_179_Rack_0002_	FDO1239Z0XQ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-SS-01	WS-C4503-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0002	SPE1447006J	Test Partition Realm Change	#VALUE!	#VALUE!
QUAN-UB1-CB-01	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003	FOX1229GJFK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-02	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003	FOX1045051Z	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-01	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003	FGE21252B1A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-02	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003	FGE21252B1W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-03	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FDO1236Y09Q	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-05	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FOX10450523	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IS-03	WS-C4500X-32											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0016	JAE1943032Y	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-01	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1244GDUX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-02	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1224GFZ4	MCEN INS QUAN Nodes	MCEN	INS

QUAN-UB1-OS-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	SAL1630HP4W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-EO-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0112_	SAL13516P34	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U01-BI-01	ASR1002-X											BLDG_3255_RM_179_ROW_4_RACK_1	FOX1938G7PZ	MARFORRES CLJN Nodes	MARFORRES	CLJN
QUAN-UB1-OR-01	CISCO3945-CHASSIS											Building 3255, Room 179, Row 4, Rack 1, RU1	FTX1644AK5S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-08	WS-C3850-12XS												FCW1949F0Z4,FCW1949C17X	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-IR-01	ASR1004											MCEN-ES	FOX1352GKYQ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-IS-01	WS-C3750G-48TS-E											MCEN-ES	FHG1413R0BJ	MCEN INS Legacy Nodes	MCEN	INS

OLT QUAN-U03-OL-01			
BLDG	ONT	COUNT	ONT SW
3			
	709GP	1	ONT709GP.3.21.3
72			
	140C	1	ONT140.1.7.34
1775			
	728GP	3	ONT728GP.3.20.7
1999			
	140C	1	ONT140.1.7.34
2044			
	728GP	54	ONT728GP.3.20.7
2076			
	709GP	1	ONT709GP.3.21.3
2118			
	140C	1	ONT140.1.7.34
2200			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
2202			
	709GP	1	ONT709GP.3.21.3
2203			
	709GP	2	ONT709GP.3.21.3
2204			
	709GP	1	ONT709GP.3.21.3
2207			
	709GP	1	ONT709GP.3.21.3
2208			
	709GP	1	ONT709GP.3.21.3
2209			
	709GP	1	ONT709GP.3.21.3
2210			
	709GP	1	ONT709GP.3.21.3
2247			
	709GP	1	ONT709GP.3.21.3
2248			
	709GP	1	ONT709GP.3.21.3
2249			
	709GP	1	ONT709GP.3.21.3
2301			
	728GP	1	ONT728GP.3.20.7
3077			
	728GP	1	ONT728GP.3.20.7
3086			
	709GP	1	ONT709GP.3.21.3
3230			
	709GP	1	ONT709GP.3.21.3
3232			
	709GP	1	ONT709GP.3.21.3
3240			
	140C	1	ONT140.1.7.34
3259			
	709GP	1	ONT709GP.3.21.3
3399			
	709GP	1	ONT709GP.3.21.3
24204			
	709GP	1	ONT709GP.3.21.3
27282			
	709GP	1	ONT709GP.3.21.3
28000			
	709GP	1	ONT709GP.3.21.3
28009			
	709GP	1	ONT709GP.3.21.3

OLT QUAN-U07-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24005			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24006			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24008			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24009			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24015			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24017			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24018			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24142			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24144			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24157			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24164			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
24180			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24191			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24193			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24194			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24195			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24196			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24197			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24198			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24199			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24200			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24204			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
27282			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130C			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		38	
TOTAL		31	
TOTAL		7	

OLT QUAN-U08-OL-01			
BLDG	ONT	COUNT	ONT SW
69			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
122			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1304			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1775			
	729GP	5	ONT729GP.3.20.7;ONT729_V005591
1999			
	140C	1	ONT140.1.7.34
	140W	4	ONT140.1.7.34
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
2033			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2044			
	729GP	17	ONT729GP.3.20.7;ONT729_V005591
2076			
	709GP	1	ONT709GP.3.21.3
2117			
	709GP	1	ONT709GP.3.21.3
2187			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2200			
	709GP	1	ONT709GP.3.21.3
2301			
	729GP	34	ONT729GP.3.20.7;ONT729_V005591
3065			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3070			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
3186			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3202			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3228			
	709GP	1	ONT709GP.3.21.3
3229			
	728GP	1	ONT728GP.3.20.7
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3230			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3240			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3255			
	709GP	1	ONT709GP.3.21.3
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3259			
	709GP	3	ONT709GP.3.21.3
3280			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3300			
	709GP	1	ONT709GP.3.21.3
3311			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3312			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3313			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3314			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591

OLT QUAN-U09-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26100			
	709GP	1	ONT709GP.3.21.3
26164			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26183			
	709GP	1	ONT709GP.3.21.3
27170			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27277			
	729GP	6	ONT729GP.3.20.7;ONT729_V005591
27278			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
27277A			
	709GP	1	ONT709GP.3.21.3
27290TX			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		16	
TOTAL		8	
TOTAL		8	

1//2			
	709GP	1	ONT709GP.3.21.3
2189A			
	709GP	1	ONT709GP.3.21.3
2201A			
	709GP	1	ONT709GP.3.21.3
2203A			
	709GP	1	ONT709GP.3.21.3
3230T			
	709GP	1	ONT709GP.3.21.3
TOTAL		92	
TOTAL		28	
TOTAL		64	

140C	5 4 port
140W	4 4 port
709GP	40 4 port
728GP	60 24 Port
729GP	144 24 Port
	253

Total 24 port switches Needed	De-Scope	146
Total SFP's	De-Scope	584

5001			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5002			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5003			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2189A			
	709GP	1	ONT709GP.3.21.3
2189N			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3083A			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
TOTAL		107	
TOTAL		40	
TOTAL		67	

** Red-Highlighed items already have MCEN-N presense within those building arleady and are deemed out-of-scope until VSS.

** All other legacy ONT devices will be replaced with C9300L-24P-4X-A switches

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
INHZ-U00-IR-01	INHZ	Router	Cisco	CISCO2911/K9						Naval Surface Warfare Center Indian Head MD Bldg 290	FTX1644AL07	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IR-04	INHZ	L3Switch	Cisco	WS-C3750G-12S-E						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X2G5	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IS-01	INHZ	Router	Cisco	SM-ES2-24						Naval Surface Warfare Center Indian Head MD Bldg 290	FOC16403FPC	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-OS-03	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X1Z8	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U01-AS-01	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_521_Floor_1_Rm_Warehouse_Rack_1	FDO1436X243	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-02	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-S			1			4 Bldg_700_Floor_1_Room_RouterRm_Rack_1_	FDO1623X01R	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-03	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-E			1			4 Bldg_2083_Floor_1_Room_storagecloset_Rack_1_	FDO1529X1YG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-04	INHZ	L3Switch	Cisco	WS-C4506-E				3		4 Bldg_901_Floor_1_Room_112_Rack_1_	SPE173000BG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-05	INHZ	L3Switch	Cisco	WS-C4506-E				3		2 Bldg_901_Floor_1_Room_Mail_Rack_1_	SPE173000CR	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-06	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_290_Floor_1_Rm_MSf_Rack_AccessCab2	FDO1436X2S3	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-07	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_D61_Floor_1_Room_Boiler_Rack_1_	FDO1645Y140	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-08	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_870_Floor_1_Room_1_Rack_Wallrack_	FDO1437X03Q	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-DS-01	INHZ	L3Switch	Cisco	WS-C3750G-12S-S					2	Bldg_290_Floor_1_Room_MSf_Rack_8_	FDO1402Y2EK	NCR QUAN Nodes	NCR	QUAN
Total					4		2	6	2	30				

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 3X	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
PKWY-U00-IR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ3	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ2	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					MCSC Tech Parkway Stafford VA	FDO1403X0CU	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-04	PKWY	L3Switch	Cisco	WS-C3560V2-24TS-S					MCSC Tech Parkway Stafford VA	FDO1437X3GW	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSN4	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSNH	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_PKWY_Floor_0001_Room_Telco1_Rack_0001	FDO1403X0CP	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U01-AS-01	PKWY	L3Switch	Cisco	WS-C4506-E			3		4 Bldg_105_Floor_0001_Room_0004_Rack_0001_	FOX1415G443	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-02	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_0001_Room_0004_Rack_0001_	SPE152500N1	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-03	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_PG10_Rack_5_	FOX1429G267	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-04	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_MRAP_Rack_4_	FOX1405G60H	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-05	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105TechPKY_Floor_GCSS_Room_Telco1_Rack_0003_	FOX1428H2JX	NCR QUAN Nodes	NCR	QUAN
Total							15	12					

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	SFP-10G-LR++	Device Location	Serial Number	Asset Tag	Partition	count	company	mitsc
SCPA-U00-IR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGC,FOC12085P69		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U00-OR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGF,FOC12085P6A		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U01-AS-01	SCPA	L3Switch	Cisco	WS-C4506-E			3	4	Bldg_51BH_Floor_0002_Room_Telco1_Rack_0001_	SPE17280251		NCR QUAN Nodes	4	NCR	QUAN
				Total			3	4							

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BAND-U00-IR-01	BAND	Router	Cisco	CISCO2911/K9					Bldg_1_Floor_Basement_Room_Basement_Telco_Rack_1_	FTX1644AKUW	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-IS-01	BAND	Router	Cisco	SM-ES2-24					Bldg_1_Floor_Basement_Room_BasementTelco_Rack_1_	FOC16418358	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-OR-01	BAND	Router	Cisco	ASR1002-X					Bldg_1_Floor_Basement_Room_Telco Rm_Rack_1_	FOX1829G0ZX	MCEN INS QUAN Nodes	MCEN	INS
BAND-U01-AS-01	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S			De-Scope 1	De-Scope 4	Bldg_1_Floor_Basement_Room_TelcoRm_Rack_1_	FDO1437V253	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-02	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_Floor_1_Room_Lan RM_Rack_1_	FDO1621X11M	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-03	BAND	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_WireCloset_Rack_1_	FDO1623X01P	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-05	BAND	L3Switch	Cisco	WS-C3560X-48T-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_Telco Rm_Rack_1_	FDO1913P09U	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-06	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_floor_Garage_Room_StorageRm_Rack_1_	FDO1437V25B	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-DS-01	BAND	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_1_Floor_Basement_Room_TelcoRM_Rack_1_	FDO1408X10T	HQMC QUAN Nodes	HQMC	QUAN

Total0000

** Row 10 (WS-3750G-12S-S) can be taken out of scope since all access switches will connect to row 5 (C9300-48P-A).

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BRRK-U00-IR-01	BRRK	Router	Cisco	CISCO2921/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AJKD	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IR-02	BRRK	Router	Cisco	CISCO2911/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AKRR	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-01	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC16403FY5	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-02	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC1641834K	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_2_	FDO1436X1ZL	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OR-01	BRRK	Router	Cisco	ASR1002-X							Bldg_700_Floor_2_Room_Server_Rack_3_	FOX1830GSKX	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_3_	FDO1436X265	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U01-AS-01	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 4	Bldg_700_Floor_1_Room_S1_Rack_1_	SPE173400CX	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-02	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 2	Bldg_700_Floor_2_Room_mfd_Rack_1_	SPE173000ET	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-03	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_9_Floor_Basement_Room_LAN Room_Rack_1_	FXS1733Q0TH	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-04	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_20_Floor_Garage_Room_LanRoom_Rack_1_	FXS1735Q2F2	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-05	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_21_Floor_1_Room_1_Rack_1_	FXS1733Q0YY	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-06	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS1_Floor_Basement_Room_Comm_Rack_1_	FDO1436X2SJ	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-07	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS2_Floor_Basement_Room_Comm_Rack_1_	FDO1436X26H	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-08	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS3_Floor_Basement_Room_Comm_Rack_1_	FDO1436X1SK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-09	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS4_Floor_Basement_Room_Comm_Rack_1_	FDO1436X3J4	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-10	BRRK	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1				De-Scope 4	Bldg_CMC_Floor_Basement_Room_CommRm_Rack_1_	FDO1630X009	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-01	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-02	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CS	HQMC QUAN Nodes	HQMC	QUAN
Total						0	0	0	0	0	0				

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc	
WNYZ-L00-CB-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U							MCEN-ES	FOC1110Z342	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-CB-02	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC0935U0UT	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-CB-03	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-S1U								FOC1030Y47D	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-IR-01	WNYZ	Router	Cisco	ASR1002-X								FOX1830GSKY	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-IS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Z20E	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-OR-01	WNYZ	Router	Cisco	ASR1006								FXS1817Q2D3	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-OS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Y2BD	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-U00-IR-01	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FTX1644AKZ6	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IR-02	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FTX1644AL58	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IR-04	WNYZ	L3Switch	Cisco	WS-C3750G-12S-E								Bldg_220_Floor_2_Room_220_Rack_1_	FDO1436X2HF	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IS-01	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FOC17440MJX	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IS-02	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FOC17440MG6	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-OS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S								Bldg_196_Floor_2_Room_ServerFarm_Rack_2/RowA_	FDO1529X1J2	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U01-AS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_196_Floor_3_Room_302_Rack_1_	FDO1645Y12P	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-04	WNYZ	L3Switch	Cisco	WS-C4506-E	De-Scope 1					De-Scope 4	Bldg_220_Floor_2_Room_220_Rack_1_	FOX1346GVRV	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-05	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S						De-Scope 4	Bldg_211_Floor_1_Room_Telco	FDO1542X352	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-06	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U						De-Scope 4	Bldg_196_Floor_2_Room_243_Rack_16_	FOC1209Z4UT	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-07	WNYZ	L3Switch	Cisco	WS-C4503-E						De-Scope 4	Bldg_169_Floor_1_Room_Storage_Rack_1_	FXS1735Q2E7	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-08	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_Qtrs V_Floor_2_Room_upstair_Rack_1_	FDO1645Y135	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-DS-01	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2EB	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-DS-02	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2FX	HQMC QUAN Nodes	HQMC	QUAN	
Total					0	0	0	0	0							

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
ANNZ-U00-IR-01	ANNZ	Router	Cisco	CISCO3925-CHASSIS						Bldg_72_Floor_1_Room_140_Rack_1_	FTX1644AHV3	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-IS-01	ANNZ	Router	Cisco	SM-ES2-24						Bldg_72_Floor_1_Room_140_Rack_1_	FOC16403FQA	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-OS-03	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Bldg_72_Floor_1_Room_143_Rack_1_	FDO1436X26E	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U01-AS-02	ANNZ	L3Switch	Cisco	WS-C4506-E			3			4 Bldg_351_Floor_1_Room_Admin_Rack_1_	FXS1732Q0DX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-03	ANNZ	L3Switch	Cisco	WS-C3560-48TS-S		1				2 Bldg_351_Floor_2_Room_1_Rack_1_	FDO1431Z0YP	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-04	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1					2 Bldg_352B_Floor_1_Room_1_Rack_1_	FDO1632X2QY	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-05	ANNZ	L3Switch	Cisco	WS-C3750G-24TS-S	1					2 Bldg_352A_Floor_1_Room_1_Rack_1_	CAT1050RGD2	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-99	ANNZ	Router	Cisco	C891F-K9						Bldg_351_Floor_1_Room_120_Rack_FSRDesk	FJC2034L1RJ	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-BI-01	ANNZ	Router	Cisco	CISCO2921/K9						VERIZON-CIRCUIT-ID (BCBKSDH60001) T-1	FTX1424AHN8	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-DH-01	ANNZ	Router	Cisco	2811						Bldg_351_Floor_1_Room_109_Rack_1_	FTX1436A0XC	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-DP-02	ANNZ	Router	Cisco	CISCO2911/K9						Bldg_400A_Floor_1_Room_1_Rack_1_	FTX1644AKYX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-ES-02	ANNZ	Router	Cisco	SM-ES2-24						Bldg_400A_Floor_1_Room_1_Rack_1_	FOC1614709K	HQMC QUAN Nodes	HQMC	QUAN
Total					2	1	3	0	10					

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48V4C-A	SFP-10G-LR++	Total Ports per Site
(b)(4)												

Total	(b)(4)
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C9300L-24P-4X-A	(b)(4)
C9300L-48P-4X-A	
C9300-48P-A	
Total EUB Switches	
C9300-48P-A With NM-8X	
C9300-48P-A With No NM	
STACK-T1-3M	
CAB-SPWR-150CM	

(b)(4)

Host Name	Site	Device Type	Device Vendor	Device Model	C3300-24	C3300-48	C3300-48P-A 12	C3300-48P-A 32	C3300-48P-A 52	C3300-48P-A 62	C3300-48P-A 72	8 Port	C3500-48Y4C-A	SFP 10G-SR++	Device Location	Serial Number	Partition	Company	Notes
(b)(4)																			

(b)(4)

				Total															

(b)(4)

(b)(4)

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)														

Total	(b)(4)
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Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 3X	SFP-10G-LR+==	Device Location	Serial Number	Partition	company	misc
(b)(4)													

Total	(b)(4)
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Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X SFP-10G-LR++	Device Location	Serial Number	Asset Tag	Partition	count	company	misc
(b)(4)														
Total						(b)(4)								

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	misc
(b)(4)													
					Total		(b)(4)						

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)															

Total	(b)(4)
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Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A-2X	C9300-48P-A-3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)															
Total		(b)(4)													

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	mitsc
(b)(4)														

Total	(b)(4)
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PERFORMANCE SPECIFICATION FOR MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA

3 Mar 2021



Prepared By:

**UNITED STATES MARINE CORPS
Marine Corps Systems Command
Supporting Establishment Systems
PMM170 Network and Infrastructure**

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1 GENERAL

This is a Firm-Fixed-Price (FFP) Contract, for the Network Communications Infrastructure (NCI) program office to modernize the enterprise communications infrastructure aboard Marine Corps Base (MCB) Quantico, VA.

The services included in this FFP contract will be non-personal services. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the contractor who, in turn is responsible to the Government. The Government will describe the specific performance requirements at the task and delivery order level, but all work performed will fall within the general scope described herein.

1.1 DESCRIPTION OF SERVICES / INTRODUCTION

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform modernization and sustainment services as defined in this Performance Specification except for those items specified as Government Furnished Property (GFP) and services. The contractor shall perform to the standards articulated in this contract.

1.2 BACKGROUND

Traditionally, Marine Corps Systems Command (MCSC), NCI Program Office (previously known as the Base Telecommunications Infrastructure) has been responsible for the upgrade and expansion of the Marine Corps' legacy Time Division Multiplexing (TDM) voice systems, Synchronous Optical Network (SONET), and outside plant (OSP) cable infrastructure. These previous efforts were typically executed via individual FFP Contracts. Due to advancing technologies and increased requirements, the BTI mission expanded to include the complete modernization/replacement of all Low Speed Time Division Multiplexing (LSTDM) technologies. More recently, the NCI mission has expanded to include the modernization of the Distribution and Access Layer Transport infrastructure to the End-User Building (EUB). As a result, NCI is now responsible for the modernization and sustainment of the Base Area Network (BAN)/Local Area Network (LAN) and the Unified Communications (UC) at every Marine Corps Installation (MCI).

1.3 OBJECTIVES

The objective of this initiative is the complete modernization of the Base Telecommunications Infrastructure (BTI) aboard MCB Quantico in accordance with (IAW) the Marine Corps Wide Area Network (WAN) Transport Implementation Plan that aligns with the normalization of the Joint Information Environment (JIE). This will be realized through the enterprise-wide deployment of homogeneous systems and subsystems in order to minimize operation demands on Installation personnel and simplify sustainment activities for the NCI Program Office. This modernization effort shall include the BAN Transport and Unified Communications aboard MCB Quantico that will support the details in Sections 5.1 and 8.2 of this PWS. The overall intent of this PWS is to establish a standardized enterprise solution with the flexibility for a System Integrator (SI) to support sustainment activities that includes technical refresh and unforeseen systems upgrades to hardware, software, and ancillary equipment.

1.4 SCOPE

This PWS establishes and defines the requirements for the contractor to Engineer, Furnish, Install, Secure, Test (EFIST) and make operational a turnkey BAN Transport and Enterprise UC Voice solution for the modernization of the existing communication infrastructure at MCB Quantico – or other USMC facilities as defined by the Government – to include enterprise integration and convergence. The contractor shall also provide all ancillary equipment, labor, training, software, firmware, licenses, grounding, and interfaces associated with these systems to deliver a complete turnkey solution. The contractor shall provide all supporting documentation associated with the delivered solution.

1.5 ORDERING PERIOD / PERIOD OF PERFORMANCE

The delivery for this modernization effort will be 18 months after contract award.

1.6 GENERAL INFORMATION

1.6.1 RECONGNIZED HOLIDAYS

The contractor is not required to perform work or services on the Federal Government holidays identified below.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

1.6.2 HOURS OF OPERATION

The contractor shall provide services IAW Marine Corps Systems Command Order 5530.2, working hours for on-site contractors shall be within 0630-1800 local time. All work shall typically be performed within the Government-defined core hours. There may be a need for occasional work outside of normal Government-defined core hours. No overtime will be authorized.

1.6.3 PLACE OF PERFORMANCE

The work to be performed under this FFP Contract will be performed at MCB Quantico in Quantico, VA.

1.6.4 TYPE OF CONTRACT

The Government will award a FFP Contract issued for specific work at MCB Quantico.

1.6.5 PHYSICAL SECURITY

The contractor shall be responsible for safeguarding all Government equipment, information and property provided for contractor use. At the close of each work period, Government facilities, equipment, and materials shall be secured.

1.6.6 SECURITY REQUIREMENTS

The information provided to the contractor will be unclassified and/or Controlled Unclassified Information (CUI). Certain contractors will be required to perform IT-I/II duties that require favorably adjudicated Tier 5/3 Level investigations. The Defense Counterintelligence Security Agency (DCSA) will not authorize contractors to submit the necessary Tier Level investigations, solely in support of IT level designation requirements, without a valid classified requirement as specified in a DD-254. This effort does not warrant a DD-254, therefore the Government Contracting Activity Security Office (GCASO) is required to submit any required investigations in support of IT level designations. The contractor is required to provide a roster of prospective contractor employees performing IT Level II and/or IT Level I duties to the MCSC Contracting Officer's Representative (COR). This roster shall include: full names, Social Security Numbers, IT Level required, e-mail address, and phone number for each contractor requiring investigations in support of IT Level designations. The COR will verify the IT Level requirements and forward the roster to the GCASO. Contractors found to be lacking required investigations will be contacted by the GCASO.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) via encrypted e-mail to MCSC_Security@usmc.mil or 703-432-3374/3952 if any contractor performing on this contract receives an unfavorable adjudication. The FSO must also notify the PERSEC Office, within 24 hours, of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor performing on this contract, if they have been granted an IT designation, issued a CAC and/or a MCSC Building Badge. The FSO shall notify the Government (written notice) within 24 hours of any contractor personnel added or removed from the contract that have been granted IT designations, issued a Common Access Card (CAC) and/or a MCSC Building badge/access.

1.6.6.1 DEFENSE BIOMETRIC IDENTIFICATION CARD

Certain contractors may require the issuance of a Defense Biometric Identification (DBID) card in order to gain access to MCB Quantico. The Contracting Officer Representative (COR) will identify and approve only those contractor personnel performing on this contract that require a DBID card in order to perform their job function aboard the base.

1.6.6.2 VENDOR SCREENING

The contractor shall return a completed Contractor Screening Form, which will be provided as Attachment (5) to the SF1449, in order to identify all contractor personnel requiring access to Installations/Detachments, base facilities, and/or handling Government assets. This form includes personal identification information for respective contractor personnel and shall be either: hand delivered to the Installation Technical Support Officer (TSO) or sent in a password protected document. If the vendor screening form is sent via e-mail, the password shall be provided and sent in a separate email. The contractor shall provide a completed form to the TSO no later than two (2) weeks prior to the start of work for processing and vetting by the Installation/Detachment Security Office. The Security Office will respond with any favorable or unfavorable screening outcomes as they are received from the Installation Provost Marshall's Office (PMO). Any personnel receiving an unfavorable outcome will not be authorized access to the Installation for the purpose of performing work related to this contract.

All required escorts shall be provided by Base, G/S-6 staff. It is the contractor's responsibility to secure any facility upon exiting the facility for which they are provided a key and unescorted access. The Base, G/S-6 will exercise security supervision over all contractor personnel working on this project and will provide security support to the contractor. The contractor shall comply with all emergency rules and procedures established for this Base. All personnel aboard the Base are subject to random inspections of their vehicles, personal items, and of themselves. Consent to these inspections is considered to have been given upon entrance to the base and its facilities. Photography, videotaping, and/or audio recordings aboard the base are strictly prohibited without proper authorization by the local Base authorities.

1.6.6.3 COMMON ACCESS CARD

The COR will identify and only approve those contractor employees performing on this contract that require CACs in order to perform their job function. In accordance with Headquarters, United States Marine Corps issued guidance relative to Homeland Security Presidential Directive – 12 (HSPD-12), all personnel must meet eligibility criteria to be issued a CAC. In order to meet the eligibility criteria, contractor employees requiring a CAC must obtain and maintain a favorably adjudicated Personnel Security Investigation (PSI). Prior to authorizing a CAC, the employee's Joint Personnel Adjudication System (JPAS) record must indicate a completed and favorably adjudicated PSI or (at a minimum) that a PSI has been submitted and accepted (opened). The minimum acceptable investigation is a T-1 or a National Agency Check with Written Inquiries (NACI). If a contractor employee's open investigation closes and is not favorably adjudicated, the CAC must be immediately retrieved and revoked. CACs are not issued for convenience.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) at 703-432-3490/3952 if any contractor performing on this contract receives an unfavorable adjudication after being issued a CAC. The FSO must also immediately notify the PERSEC Office of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor issued a CAC, regardless of whether a JPAS Incident Report is submitted.

Each CAC is issued with a "ctr@usmc.mil" e-mail account that the individual contractor is responsible to keep active by logging in on a regular basis (at least twice a month), sending an e-mail and clearing any unneeded e-mails. Contractors issued a CAC are prohibited from "auto-forwarding" e-mail from their .mil e-mail account to their .com e-mail account. If the "ctr@usmc.mil" e-mail account is not kept active, G-6 will deactivate the account and the CAC will also lose its functionality. Contractor employees shall solely use their government furnished "ctr@usmc.mil" e-mail accounts for work supporting the USMC, conducted in fulfillment of this contract, and shall not use a contractor supplied or personal e-mail account to conduct FOUO government business. The use of a contractor or personal e-mail account for contractor business or personal use is allowed, but only when using cellular or a commercial internet service provider.

If a contractor loses their eligibility for a CAC due to an adverse adjudicative decision, they have also lost their eligibility to perform on MCSC contracts.

1.6.6.4 MARINE CORPS ENTERPRISE NETWORK COMPUTER ACCESS

Contractor personnel accessing Marine Corps Systems Command Computer systems must maintain compliance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access

Guide. Contractor personnel will submit a DD Form 2875, Systems Authorization Access Request (SAAR), and completion certificates for the CYBERC course located on MarineNet at <https://www.marinenet.usmc.mil>. The CYBERC course consists of the DoD Cyber Awareness Challenge and Department of the Navy Annual Privacy Training on Personally Identifiable Information (PII). Contractors will have to create a MarineNet account in order to acquire the required training.

Marine Corps Enterprise Network (MCEN) Information Technology (IT) resources if provided are designated For Official Use Only (FOUO) and other limited authorized purposes. DoD military, civilian personnel, consultants, and contractor personnel performing duties on MCEN information systems may be assigned to one of three position sensitivity designations.

1. ADP-I (IT-1): Favorably adjudicated T-5, T5R, (formerly known as Single Scope Background Investigation (SSBI)/SSBI Periodic Reinvestigation (SBPR)/SSBI Phased Periodic Reinvestigation (PPR))
2. ADP-II (IT-2): Favorably adjudicated T-3, T3R, (formerly known as Access National Agency Check and Inquiries (ANACI)/ National Agency Check with Law and Credit (NACLC)/Secret Periodic Review (S-PR))
3. ADP-III (IT-3): Completed T-1, (formerly known as National Agency Check with Inquiries (NACI))

All privileged users (IT-1) must undergo a T-5 investigation regardless of the security clearance level required for the position. Privileged users must maintain the baseline Cyberspace Workforce Cybersecurity Technical (CST) or Cybersecurity Manager (CSM) relating to the position being filled. Privileged users are defined as anyone who has privileges over a standard user account as in system administrators, developers, network administrators, code signing specialist and Service Desk technicians.

All MCEN users must read, understand, and comply with policy and guidance to protect classified information and Controlled Unclassified Information (CUI), and to prevent unauthorized disclosures in accordance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access Guide and CJCSI 6510.01F.

MCEN Official E-mail Usage - MCEN IT resources are provided FOUO and other limited authorized purposes. Authorized purposes may include personal use within limitations as defined by the supervisor or the local command. Auto forwarding of e-mail from a MCEN Non-classified Internet Protocol Network MCEN-N) to commercial or private domains (e.g., Hotmail, Yahoo, Gmail, etc.) is strictly prohibited. E-mail messages requiring either message integrity or non-repudiation are digitally signed using DoD Public Key Infrastructure (PKI). All e-mail containing an attachment or embedded active content must be digitally signed.

MCEN users will follow specific guidelines to safeguard CUI, including PII and FOUO. Non-official e-mail is not authorized for and will not be used to transmit CUI to include PII and Health Insurance Portability and Accountability Act (HIPAA) information. Non-official e-mail is not authorized for official use unless under specific situations where it is the only mean for communication available to meet operational requirements. This can occur when the official MCEN provided e-mail is not available but must be approved prior to use by the Marine Corps Authorizing Official (AO).

All personnel will use DoD authorized PKI certificates to encrypt e-mail messages if they contain any of the following:

1. Information that is categorized as FOUO or Sensitive but Unclassified (SBU).
2. Any contract sensitive information that normally would not be disclosed to anyone other than the intended recipient.
3. Any privacy data, PII, or information that is intended for inclusion in an employee's personal file or any information that would fall under the tenets of MSGID: DOC/5 USC 552A. Personal or commercial e-mail accounts are not authorized to transmit unencrypted CUI or PII.
4. Any medical or health data, to include medical status or diagnosis concerning another individual.
5. Any operational data regarding status, readiness, location, or deployment of forces or equipment.

1.6.6.5 KEY CONTROL

The contractor shall establish and implement methods of making sure all keys/key cards issued to the contractor by the Government are not lost or misplaced and are not used by unauthorized persons.

NOTE: All references to keys include key cards.

No keys issued to the contractor by the Government shall be duplicated. The contractor shall develop procedures covering key control that shall be included in the Quality Control Plan. Such procedures shall include turn-in of any issued keys by personnel who no longer require access to locked areas. The contractor shall immediately report any occurrences of lost or duplicate keys/key cards to the Contracting Officer.

In the event keys, other than master keys, are lost or duplicated, the contractor shall, upon direction of the Contracting Officer, re-key or replace the affected lock or locks; however, the Government, at its option, may replace the affected lock or locks or perform re-keying. When the replacement of locks or re-keying is performed by the Government, the total cost of re-keying or the replacement of the lock or locks shall be deducted from the next payment due the contractor. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced by the Government and the total cost deducted from the next payment due the contractor.

The contractor shall prohibit the use of Government issued keys/key cards by any persons other than the contractor's employees. The contractor shall prohibit the opening of locked areas by contractor employees to permit entrance of persons other than contractor employees engaged in the performance of assigned work in those areas, or personnel authorized entrance by the Contracting Officer.

1.6.6.6 LOCK COMBINATIONS

The contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. The contractor shall ensure that lock combinations are changed when personnel having access to the combinations no longer have a need to know such combinations. These procedures shall be included in the contractor's Quality Control Plan.

1.6.7 POST AWARD CONFERENCE/PERIODIC MEETINGS

The contractor agrees to attend any post award conference convened by the contracting activity in accordance with Federal Acquisition Regulation Subpart 42.5. The Contracting Officer, Contracting Officer's Representative (COR), and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the Contracting Officer will apprise the contractor of how the Government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.6.8 CONTRACTING OFFICER'S REPRESENTATIVE

The COR(s) will be identified by separate letter(s) and monitors all technical aspects of the FFP Contract, task and delivery orders, and assists in contract administration. The COR(s) is authorized to perform the following functions: assure that the contractor performs the technical requirements of the contract; perform inspections necessary in connection with contract performance; maintain written and oral communications with the contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor contractor's performance and notify both the Contracting Officer and contractor of any deficiencies; coordinate availability of Government Furnished Property (GFP); and provide site entry of contractor personnel. A letter of designation issued to the COR(s), a copy of which is sent to the contractor, states the responsibilities and limitations of the COR(s), especially regarding changes in price estimates or changes in delivery dates or periods of performance. The COR(s) is/are not authorized to change any of the terms and conditions of the resulting order, especially any terms that affect price, delivery schedule, or period of performance.

1.6.9 KEY PERSONNEL

The contractor shall provide a Project Manager who shall be responsible for the performance of the work. The name of this person and an alternate who shall act for the contractor when the manager is absent shall be designated in writing to the Contracting Officer. The Project Manager or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract.

The Project Manager or alternate shall be available between 8:00 AM to 4:30 PM, Monday thru Friday based on the time zone of the location/Installation except Federal holidays or when the Government facility is closed for administrative reasons.

Qualifications for all key personnel are listed in Table 1.

Table 1 – Key Personnel*

KEY PERSONNEL	CERTIFICATIONS	EXPERIENCE	SKILL	PROJECT SEQUEMENT
Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and organizational skills	Implementation
On-Site Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and supervisory skills	Implementation
Quality Control/Quality Assurance Manager	BICSI Installer Certified	7 Years QC/QA Management	Proven telecommunications quality management skills	Implementation
Lead Systems Engineer (LSE)	BS Science/Engineering	10 Years Engineering Discipline	Licensed Professional Engineer (PE)	Implementation
Network/Telecommunications Engineer	Registered Communications Distribution Design (RCDD)	10 Years Network/Telecommunications	Proven telecommunications design and installation skills	Implementation
Logistician	Certified Professional Logistician	5 Years Logistics Management	Proven leadership, management, and organizational skills	Sustainment

* For the Quality Control/Quality Assurance Manager, the Contractor may swap 5 years of relevant QC/QA experience for the BICSI certification.

* For the Logistician, the Contractor may swap 5 years of logistics experience for the Certified Professional Logistician certification

1.6.10 IDENTIFICATION OF CONTRACTOR EMPLOYEES

All contract personnel attending meetings, answering Government telephones, and working in any situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed. Contractors shall obtain visitor badges in accordance with MCB Quantico security policy.

1.6.11 CONTRACTOR TRAVEL

The contractor may be required to travel to off-site training locations and to ship training aids to these locations in support of this PWS. Contractor may be authorized travel expenses consistent with the substantive provisions of the Federal Acquisition Regulation 31.205-46 and the limitation of funds specified in each task and delivery order. All travel requires prior Government approval/authorization by the COR(s).

1.6.12 ORGANIZATION CONFLICT OF INTEREST

To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the contractor shall protect the data from unauthorized use and disclosure and agrees not to use it to compete with those other companies.

1. “Organizational Conflict of Interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the government, or the person’s objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. “Person” as used herein includes corporations, partnerships, joint ventures, and other business enterprises.

2. The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in the contract, the contractor does not have any organizational conflict of interest(s) as defined in paragraph (1).
3. It is recognized that the effort to be performed by the contractor under this contract may create a potential organizational conflict of interest on the instant contract or on a future acquisition. In order to avoid potential conflict of interest, and at the same time to avoid prejudicing the best interest of the government, the right of the contractor to participate in future procurement of equipment and/or services that are the subject of any work under this contract shall be limited as described below in accordance with the requirements of FAR Subpart 9.5.
4. The contractor agrees:
 - a) That it shall not release, disclose, or use in any way that would permit or result in disclosure to any party outside the government any information provided to the contractor by the government during or as a result of performance of this contract. Such information includes, but is not limited to, information submitted to the government on confidential basis by other persons. Further, the prohibition against release of government provided information extends to cover such information whether or not in its original form, e.g., where the information has been included in contractor generated work or where it is discernible from materials incorporating or based upon such information. This prohibition shall not expire after a given period of time. See, DFARS 252.204-7000, Disclosure of Information, included in the contract.
 - b) The contractor agrees that it shall not release, disclose, or use in any way that would permit or result in disclosure or any party outside the government any information generated or derived during or as a result of performance of this contract.
 - c) The prohibitions contained in subparagraphs (4)(a) and (4)(b) shall apply with equal force to any affiliate of the contractor, any subcontractor, consultant, or employee of the contractor, any joint venture involving the contractor, any entity into or with which it may merge or affiliate, or any successor or assign of the contractor. The terms of paragraph (f) of the Special contractor Requirement relating to notification shall apply to any release of information in contravention of this paragraph (4).
5. The contractor further agrees that during the performance of this contract and for a period of three years after completion of performance of this contract, the contractor; any affiliate of the contractor; any subcontractor, consultant, or employee of the contractor; any joint venture involving the contractor; any entity into or with which it may subsequently merge or affiliate; or any other successor or assign of the contractor, shall not furnish to the Marine Corps, either as a prime contractor or as a subcontractor, or as a consultant to a prime contractor or as a subcontractor, any system, component or services which is the subject of the work to be performed under this contract. This exclusion does not apply to any re-competition for those systems, components, or services on the basis of work statements growing out of the effort performed under this contract, developed from a source other than the contractor, subcontractor affiliate, or assign of either. During the course of performance of this contract or before the three-year period following completion of this contract has lapsed, the contractor may, with the authorization of the cognizant contracting officer, participate in a subsequent procurement for the same system, component, or service. In other words, the contractor may be authorized to

compete for procurement(s) for systems, components or services subsequent to an intervening procurement.

6. The contractor agrees that, if after award, it discovers an actual or potential organizational conflict of interest; it shall make immediate and full disclosure in writing to the contracting officer. The notification shall include a description of the actual or potential organizational conflict of interest, a description of the action, which the contractor has taken or proposes to take to avoid, mitigate, or neutralize the conflict, and any other relevant information that would assist the contracting officer in making a determination on this matter. Notwithstanding this notification, the government may terminate the contract for the convenience of the government if determined to be in the best interest of the government.
7. Notwithstanding paragraph (6) above, if the contractor was aware, or should have been aware, of an organizational conflict of interest prior to the award of this contract or becomes, or should become aware of an organizational conflict of interest after award of this contract and does not make an immediate and full disclosure in writing to the contracting officer, the government may terminate this contract for default.
8. If the contractor takes any action prohibited by this requirement or fails to take action required by this requirement, the government may terminate this contract by default.
9. The contracting officer's decision as to the existence or nonexistence of the actual or potential organization conflict of interest shall be final and is not subject to the clause of this contract entitled "DISPUTES" (FAR 52.233.1).
10. Nothing in this requirement is intended to prohibit or preclude the contractor from marketing or selling to the United States Government its product lines in existence on the effective date of this contract; nor, shall this requirement preclude the contractor from participating in any research and development. Additionally, sale of catalog or standard commercial items are exempt from this requirement.
11. The contractor shall promptly notify the contracting officer, in writing, if it has been tasked to evaluate or advise the government concerning its own products or activities or those of a competitor in order to ensure proper safeguards exist to guarantee objectivity and to protect the government's interest.
12. The contractor shall include this requirement in subcontracts of any tier which involve access to information or situations/conditions covered by the preceding paragraphs, substituting "subcontractor" for "contractor" where appropriate.
13. The rights and remedies described herein shall not be exclusive and are in addition to other rights and remedies provided by law or elsewhere included in this contract. 5.4. Proprietary Information Exchange Agreement (PIEA)/Non-Disclosure Agreements (NDA). The contractor shall arrange the signature on all PIEA/non-disclosure agreements necessary to interface with other contractors to accomplish the contract requirements in accordance with FAR 9.505-4 prior to beginning any efforts associated with this PWS. Copies of all non-disclosure agreements required for this contract shall be provided to the Contracting Officer and COR.

1.6.13 SYSTEM SECURITY PLAN

1. System Security Plan and Plans of Action and Milestones (SSP/POAM) Reviews

- a) Within thirty (30) days of contract award, the Contractor shall make its System Security Plan(s) (SSP(s)) for its covered contractor information system(s) available for review by the Government at the contractor's facility. The SSP(s) shall implement the security requirements in Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.204-7012, which is included in this contract. The Contractor shall fully cooperate in the Government's review of the SSPs at the Contractor's facility.
- b) If the Government determines that the SSP(s) does not adequately implement the requirements of DFARS clause 252.204-7012 then the Government shall notify the Contractor of each identified deficiency. The Contractor shall correct any identified deficiencies within thirty (30) days of notification by the Government. The contracting officer may provide for a correction period longer than thirty (30) days and, in such a case, may require the Contractor to submit a plan of action and milestones (POAM) for the correction of the identified deficiencies. The Contractor shall immediately notify the contracting officer of any failure or anticipated failure to meet a milestone in such a POAM.
- c) Upon the conclusion of the correction period, the Government may conduct a follow-on review of the SSP(s) at the Contractor's facilities. The Government may continue to conduct follow-on reviews until the Government determines that the Contractor has corrected all identified deficiencies in the SSP(s).
- d) The Government may, in its sole discretion, conduct subsequent reviews at the Contractor's site to verify the information in the SSP(s). The Government will conduct such reviews at least every three (3) years (measured from the date of contract award) and may conduct such reviews at any time upon thirty (30) days' notice to the Contractor.

2. Compliance to NIST 800-171

- a) The Contractor shall fully implement the CUI Security Requirements (Requirements) and associated Relevant Security Controls (Controls) in NIST Special Publication 800-171 (Rev. 1) (NIST SP 800-171), or establish a SSP(s) and POA&Ms that varies from NIST 800-171 only in accordance with DFARS clause 252.204-7012(b)(2), for all covered contractor information systems affecting this contract.
- b) Notwithstanding the allowance for such variation, the contractor shall identify in any SSP and POA&M their plans to implement the following, at a minimum:
 - (1) Implement Control 3.5.3 (Multi-factor authentication). This means that multi-factor authentication is required for all users, privileged and unprivileged accounts that log into a network. In other words, any system that is not standalone should be required to utilize acceptable multi-factor authentication. For legacy systems and systems that cannot support this requirement, such as CNC

equipment, etc., a combination of physical and logical protections acceptable to the Government may be substituted;

(2) Implement Control 3.1.5 (least privilege) and associated Controls, and identify practices that the contractor implements to restrict the unnecessary sharing with, or flow of, covered defense information to its subcontractors, suppliers, or vendors based on need-to-know principles;

(3) Implement Control 3.1.12 (monitoring and control remote access sessions) - Require monitoring and controlling of remote access sessions and include mechanisms to audit the sessions and methods.

(4) Audit user privileges on at least an annual basis;

(5) Implement:

i. Control 3.13.11 (FIPS 140-2 validated cryptology or implementation of NSA or NIST approved algorithms (i.e. FIPS 140-2 Annex A: AES or Triple DES) or compensating controls as documented in a SSP and POAM); and,

ii. NIST Cryptographic Algorithm Validation Program (CAVP) (see <https://csrc.nist.gov/projects/cryptographic-algorithm-validation-program>);

(6) Implement Control 3.13.16 (Protect the confidentiality of CUI at rest) or provide a POAM for implementation which shall be evaluated by the Navy for risk acceptance.

(7) Implement Control 3.1.19 (encrypt CUI on mobile devices) or provide a plan of action for implementation which can be evaluated by the Government Program Manager for risk to the program.

3. Cyber Incident Response:

a) The Contractor shall, within fifteen (15) days of discovering the cyber incident (inclusive of the 72-hour reporting period), deliver all data used in performance of the contract that the Contractor determines is impacted by the incident and begin assessment of potential warfighter/program impact.

b) Incident data shall be delivered in accordance with the Department of Defense Cyber Crimes Center (DC3) Instructions for Submitting Media available at http://www.acq.osd.mil/dpap/dars/pgi/docs/Instructions_for_Submitting_Me.... In delivery of the incident data, the Contractor shall, to the extent practical, remove contractor-owned information from Government covered defense information.

c) If the Contractor subsequently identifies any such data not previously delivered to DC3, then the Contractor shall immediately notify the contracting officer in writing and shall deliver the incident data within ten (10) days of identification. In such a case, the Contractor may request a delivery date later than ten (10) days after identification. The contracting officer will approve or disapprove the request after coordination with DC3.

4. Naval Criminal Investigative Service (NCIS) Outreach

The Contractor shall engage with NCIS industry outreach efforts and consider recommendations for hardening of covered contractor information systems affecting DON programs and technologies.

5. NCIS/Industry Monitoring

a) In the event of a cyber incident or at any time the Government has indication of a vulnerability or potential vulnerability, the Contractor shall cooperate with the Naval Criminal Investigative Service (NCIS), which may include cooperation related to: threat indicators; pre-determined incident information derived from the Contractor's infrastructure systems; and the continuous provision of all Contractor, subcontractor or vendor logs that show network activity, including any additional logs the contractor, subcontractor or vendor agrees to initiate as a result of the cyber incident or notice of actual or potential vulnerability.

b) If the Government determines that the collection of all logs does not adequately protect its interests, the Contractor and NCIS will work together to implement additional measures, which may include allowing the installation of an appropriate network device that is owned and maintained by NCIS, on the Contractor's information systems or information technology assets. The specific details (e.g., type of device, type of data gathered, monitoring period) regarding the installation of an NCIS network device shall be the subject of a separate agreement negotiated between NCIS and the Contractor. In the alternative, the Contractor may install network sensor capabilities or a network monitoring service, either of which must be reviewed for acceptability by NCIS. Use of this alternative approach shall also be the subject of a separate agreement negotiated between NCIS and the Contractor.

c) In all cases, the collection or provision of data and any activities associated with this statement of work shall be in accordance with federal, state, and non-US law.

2 DEFINITIONS AND ACRONYMS

2.1 DEFINITIONS

BACKBONE TRANSPORT. The communications infrastructure, outside plant cable and electronic equipment, that provides both the physical and logical connection between communications (core and distribution) nodes.

DEFECTIVE SERVICE. A service output that does not meet the standard of performance described within the Performance Specification.

DELIVERABLE. Anything that can be physically delivered but may include non-manufactured things such as meeting minutes or reports.

KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract. Key Personnel are listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal.

LONG LEAD ITEMS. Long lead Items are defined as those items that take sixty (60) or more calendar days to procure/receive due to complex design, complicated manufacturing process, and/or limited production capacity.

LOCAL TIME. Time at reckoned in a particular region or time zone.

PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

2.2 ACRONYMS

Acronym	Term
A&A	Assessment and Authorization
AC	Alternating Current
ACD	Automatic Call Distribution
ACAS	Assured Compliance Assessment Solutions
AHJ	Authority Having Jurisdiction
ANACI	Access National Agency Check and Inquiries
AO	Authorizing Official
APL	Approved Product List
AS	Assured Services
ASR	Asset Shipping Report
ATC	Authorization to Connect
ATO	Authorization to Operate
ATS	Automatic Transfer Switch
AWG	American Wire Gauge
B/P/C/S	Base/Post/Camps/Stations
BAN	Base Area Network
BET	Building Entrance Terminal
BoL	Bill of Lading
BOM	Bill of Materials

Acronym	Term
BTI	Base Telephone Infrastructure
CAC	Common Access Card
CAT I	Category I
CAT II	Category II
CAT III	Category III
CCB	Configuration Control Board
CEC	Continuing Education Credits
CEDC	Component Enterprise Data Center
CFR	Code of Federal Regulations
CI	Configuration Item
CLIN	Contract Line Item Number
CM	Configuration Management
CMDB	Configuration Management Database
CMP	Configuration Management Plan
CN	Core Node
CND	Computer Network Defense
CONOPS	Concept of Operations
CONUS	Continental United States (excludes Alaska and Hawaii)
COPP	Certified Output Protection Protocol
COR	Contracting Officer Representative
CoS	Class of Service
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-the-Shelf
CPD	Capability Production Document
CRM	Comments Resolution Matrix
CS	Cyber Security
CSM	Cyber Security Manager
CSSA	Customer Service Support Application
CST	Cyber Security Technical
CUI	Controlled Unclassified Information
CWDM	Coarse Wavelength Division Multiplexing
DBID	Defense Biometric Identification
DC	Direct Current
DD1149	Requisition and Invoice Shipping Document (Form DD1149)
DD250	Department of Defense Form 250 (Receiving Report)
DD254	Department of Defense Contract Security Requirement List
DEA	Drug Enforcement Administration
DFARS	Defense Federal Acquisition Regulation Supplement
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DLA-DS	Defense Logistics Agency - Disposition Services
DN	Distribution Node
DoD	Department of Defense
DoDIN	DoD Information Network

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Acronym	Term
DoN	Department of the Navy
DSCP	Differentiated Service Code Points
DSX	Digital Signal Cross-Connect
DWDM	Dense Wavelength Division Multiplexing
E911/NG911	Enhanced 911/Next Generation 911
EDP	Engineering Design Package
EFIST	Engineer, Furnish, Install, Secure, Test
EMT	Electrical Metallic Tubing
EOL	End of Life
EOS	End of Service
EPO	Emergency Power Off
ES&D	Enterprise Staging and Deployment
ESL	Enterprise Software License
ESOH	Environmental, Safety and Occupational Health
ETAS	Emergency Technical Assistance Services
EUB	End-user Building
EULA	End User License Agreement
EEVE	Enterprise Engineering and Verification Environment
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FFP	Firm Fixed Price
FISMA	Federal Information Security Management Act
FOUO	For Official Use Only
FSE	Field Service Engineer
FSO	Facility Security Officers
GAT	Government Acceptance Test
GFI	Government Furnished Information
GFP	Government Furnished Property
HIPAA	Health Insurance Portability and Accountability Act
HMX-1	Marine Headquarters Squadron One
HSPD-12	Homeland Security Presidential Directive-12
HVAC	Heating, Ventilating, and Air Conditioning
HW	Hardware
I3A	Installation Information Infrastructure Architecture
I3MP	Installation Information Infrastructure Modernization Program
IAW	In Accordance With
IBC	International Building Code
INFOCON	Information Operations Conditions
iRAPT	Invoice Receipt Acceptance and Property Transfer
ISN	Installation Service Node
ISP	Inside Plant
IT	Information Technology
ITIL	Information Technology Infrastructure Library
IUID	Item Unique Identification

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Acronym	Term
IVR	Interactive Voice Recognition
GFP	Government Furnished Property
JIE	Joint Information Environment
JITC	Joint Interoperability Test Command
JPAS	Joint Personnel Adjudication System
JTR	Joint Travel Regulation
KSA	Key Systems Attributes
LAN	Local Area Network
LCL	Logistic Lifecycle
LCSP	Life-Cycle Sustainment Plan
LOC	Letter of Clarification
LSC	Local Session Controller
LSTDM	Low Speed Time Division Multiplexing
MCCAST v2	Marine Corps Certification and Accreditation Support Tool
MCEN	Marine Corps Enterprise Network
MCCOG	Marine Corps Cyberspace Operation Group
MCSC	Marine Corps Systems Command
MDF	Main Distribution Frames
MPT	Manpower and Training
MOS	Mean Opinion Score
MOS	Military Occupational Specialty
MOSA	Modular Open Systems Approach
MSDS	Material Safety Data Sheet
MUDG	Military Unique Deployment Guide
NACI	National Agency Check with Written Inquiries
NACLC	National Agency Check with Law and Credit
NCA	National Capitol Region
NCES	Net-Centric Enterprise Services
NCI	Network Communications Infrastructure
NDA	Non-disclosure Agreement
NET	New Equipment Training
NIPRNet	Non-classified Internet Protocol Router Network
NIR	Non-Developmental Item Integration Review
NLT	No Later Than
NMCARS	Navy Marine Corps Acquisition Regulation Supplement
NMCI	Navy and Marine Corps Intranet
NOC	Network Operations Center
NSN	National Stock Number
OCI	Organizational Conflict of Interest
OCONUS	Outside Continental United States (includes Alaska and Hawaii)
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
ON	Optical Network
OSP	Outside Plant

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Acronym	Term
OSPDPR	Outside Plant Design and Performance Requirements
OTS	Optical Transport System
PAC	Post Award Conference
PCA	Physical Configuration Audit
PCR	Project Close-out Review
PDU	Power Distribution Unit
PERSEC Office	Personnel Security Office
PESHE	Programmatic Environment, Safety and Occupational Health, and Evaluation
PIA	Privacy Impact Assessment
PIEA	Proprietary Information Exchange Agreement
PII	Personally Identifiable Information
PM	Project Manager
PMM-172	Program Manager Marine, Customer Support and Strategic Sourcing
PMO	Provost Marshall's Office
PM N&I	Program Manager Network and Infrastructure
POA&M	Plan of Actions and Milestones
POC	Point of Contact
PoP	Period of Performance
PP	Protection Profiles
PPSM	Ports, Protocol, Services, and Management
PRS	Performance Requirements Summary
PSI	Personnel Security Investigation
PSR	Project Status Review
PSS	Pre-award Site Survey
PSTN	Public Switched Telephone Network
PUR	Purchaser User Rights
PUR	Product User Rights
QA	Quality Assurance
QAP	Quality Assurance Program
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QoS	Quality of Service
RMA	Return Material Authorization
RMF	Risk Management Framework
ROADM	Reconfigurable Optical Add/Drop Multiplexers
RTM	Requirements Traceability Matrix
RTS	Real Time Service
RU	Rack Units
S-PR	Secret Periodic Review
SAAR	System Authorization Access Request
SAR	Safety Assessment Report
SAT	System Acceptance Test

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Acronym	Term
SDN	Software Defined Network
SEP	System Engineering Plan
SI	System Integrator
SIP	Session Initiation Protocol
SIPRNet	Secure Internet Protocol Router Network
SLA	Software License Agreement
SLIN	Sub-Line Item Number
SON	Statement of Need
SONET	Synchronous Optical Network
SPPN	Special Purpose Processing Node
SBPR	SSBI Periodic Reinvestigation
SSBI	Single Scope Background Investigation
SPPR	SSBI Phased Periodic Reinvestigation
SRG	Security Requirement Guides
SSR	Site Specific Requirements
STIG	Security Technical Information Guide
SURA	Software User Rights Agreement
SW	Software
T&E	Test and Evaluation
TAS	Technical Assistance Services
TCCB	Team Configuration Control Board
TDM	Time Division Multiplexing
TDP	Technical Data Package
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TIM	Technical Interchange Meeting
TMGB	Telecommunications Main Grounding Busbar
TMS	Telephony Management Systems
TOS	Terms of Service
TPN	Tactical Processing Node
TRDP	Technical Review Data Package
TPTCTS	Test Procedures, Test Cases, Test Scripts
TRR	Test Readiness Review
TSO	Technical Support Officer
TTP	Tactics, Techniques, and Procedures
UC	Unified Communications
UCR	Unified Capabilities Requirements
UFC	Unified Facilities Criteria
UID	Unique Identification
UII	Unique Item Identifier
UPS	Uninterrupted Power Supply
VLAN	Virtual Local Area Network
VLRA	Valve Regulated Lead Acid
VoIP	Voice over Internet Protocol

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Acronym	Term
VRF	Virtual Routing and Forwarding
VSS	Verification Site Survey
WAN	Wide Area Network
WAP	Wireless Access Point
WAWF	Wide Area Work Flow
WLAN	Wireless Local Area Network
WSS	Wave Selectable Switch
XMPP	Extensible Messaging and Presence Protocol

3 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

The Government will not be providing any Government furnished property for this contract.

4 CONTRACTOR FURNISHED ITEMS AND RESPONSIBILITIES

4.1 GENERAL

The contractor shall furnish all supplies, equipment, facilities, and services required to perform work under this contract that are not identified in Section 3 of this PWS.

Accountability for all hardware and software is the sole responsibility of the contractor until such time as the Government has performed the final acceptance. All Bills of Ladings (BoLs) and shipping documents shall be provided to the Program Office upon receipt of the shipments. The contractor shall provide the Government with an initial Bill of Materials (BOM) and Configuration Management Database (CMDB) at the Technical Interchange Meeting (TIM). The contractor shall provide a final Material and Equipment List or BOM to the Government prior to the start of Cut-Over to ensure proper and accurate property transfer. The Material and Equipment List/BOM will include, at a minimum, the following fields: name, part number, item description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

The contractor shall coordinate all shipments with the Lead Logistician aboard N&I. The contractor shall mark the equipment in accordance with MIL-STD 130 and provide the Government with a completed Asset Shipping Report (ASR) and Form DD1149 for all new equipment delivered under this contract. The DD1149 Form shall contain, at a minimum, an item description, serial number, part number, unit of issue, quantity received, unit price, and total cost. The contractor shall coordinate a turnover schedule with the gaining command and perform a serialized “item by item” inventory with the Supply Officer, or designated representative, and obtain a signature for the delivery of the equipment. As part of the equipment delivery, the contractor shall provide the final Material and Equipment List.

4.2 MATERIALS EQUIPMENT

The contractor shall provide and deploy all materials and equipment required to transport, install, configure, provision, and test the systems and subsystems delivered under the task and delivery orders in accordance with established industry practices and Original Equipment Manufacturer’s (OEMs) methodologies, procedures, and sustainment support activities.

5 SPECIFIC TASKS

5.1 ENGINEER, FURNISH, INSTALL, SECURE, TEST

The contractor shall be responsible to EFIST and make operational a Regional UC System and a Base Area Network (BAN). Each system shall be completely functional with the required programming, interfaces, hardware, software, software licenses, ancillary equipment, parts, databases, and material for all identified users, services, and requirements. The modernized systems and associated sub-systems shall retain all functionality of the existing systems and provide additional functionality to meet the requirements specified in the site-specific requirements specification. To ensure compliance with all requirements, the contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all identified requirements to the Performance Requirements Summary (PRS). The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, and demonstration) to validate the contractor's proposed system design for Government acceptance. All proposed systems configurations will be baselined in accordance with PM N&I, Configuration Management Plan (CMP). The contractor shall repurpose/reutilize existing equipment to the maximum extent practical based on their solution. In addition, the contractor shall EFIST and make operational any ancillary equipment that is required to support this effort such as grounding, firmware, interfaces, patch panels, applications, and similar equipment necessary to deliver a complete and useable solution.

The contractor shall use, to the greatest extent possible, enterprise software licenses for Commercial Off-the-Shelf (COTS) software products available from the Department of the Navy (DoN) Enterprise Software License (ESL) agreements for any software required to support their proposed solution. The DoN ESL Team is aligned under Program Manager, Customer Support and Strategic Sourcing (PMM-172) as a joint Navy and Marine Corps strategic sourcing effort to consolidate, centralize, and streamline the acquisition and management of DoN ESL Agreements. Enterprise software Licenses agreements are available for the following applications: Microsoft, Oracle, Avaya, Symantec/Veritas, ActivIdentity, CISCO SMARTnet, VWware, Solarwinds, and Red Hat. The contractor will coordinate the use of available enterprise software license agreements with the NCI Program Office after contract award.

The contractor shall be responsible for replacing and correcting any hardware, software, applications, data, configurations, material, or services omitted and/or installed in contractor error without any extra expense or delay to the Government. The contractor shall not be responsible for replacing or correcting existing Government property, software, or facility problems, outside the scope of this PWS.

5.1.1 REGIONAL UNIFIED COMMUNICATIONS

The Regional UC solution shall provide business voice capability to each end-user in those locations where the solution will be deployed. MCB Quantico shall include all Non-classified Internet Protocol Router Network (NIPRNet) users on MCB Quantico, users at Indian Head, MD, Tech Parkway, Quantico Corporate Center, and Barrett Heights in Stafford, VA,. . The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911)

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services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

5.1.2 BASE AREA NETWORK

The BAN consists of a Distribution Layer and an Access Layer. It shall provide for the transportation of voice, video, and data on all locations where the solution will be deployed. There are 8 Area Distribution Nodes (ADNs) located on MCB Quantico; Bldgs. (1999, 24204, 3255, 3300, 2076, 26100, 27282, and Russell Knox). These nodes shall be connected with a Dense Wavelength Division Multiplexing (DWDM) system with a Reconfigurable Optical Add/Drop Multiplexer (ROADM) located at each node. All circuits traversing the installation shall use the DWDM. Circuits shall be transitioned off the SONET network. The BAN shall satisfy the requirements of Section 8. The BAN has no external connectivity but gets core connectivity through the Core Nodes (CNs) and the Installation Gateway.

DWDM technology will provide backbone transport connectivity at MCB Quantico. SONET will be removed.

The Contractor shall provide a second design with an “All PON” solution in accordance with section 8 and par 8.3.2.2.

5.1.3 FACILITY/NODE PREPARATIONS

5.1.3.1 POWER SYSTEMS

The Contractor shall not be required to include power as a feature of their solution, but will identify any necessary power requirements during the VSS in a report to the Government.

5.1.3.2 AUXILIARY INFRASTRUCTURE

Auxiliary Infrastructure is comprised of the equipment and components that supplement the primary systems and subsystems provided in the proposed solution. This equipment consists primarily of equipment racks/cabinets, ladder rack, cable tray, re-enforcing structures, that house the electronic components installed as a part of the overall modernization effort at each DN. All requirements for auxiliary infrastructure will be verified during the VSS.

5.2 CYBERSECURITY

The contractor, in coordination with the NCI Project Manager and NCI Cybersecurity Representative, shall perform all recommended Cybersecurity configuration settings, programming, and configurations of components being provided to ensure compliance with all cyber requirements. At a minimum, the contractor shall provide the following items for Government review: System Configuration Hardware/Software Baseline, Network/Security configurations, Ports, Protocol, Services, and Management (PPSM), system and equipment warranties, software license agreements, software upgrades, and all documentation required to support the Assessment and Authorization (A&A) and Configuration Control Board (CCB) processes. Refer to the Table 2 - Contract Deliverables Matrix for specific Cybersecurity requirements. All products must be current on the DoDIN Approved Product List (APL). The system shall be designed and implemented with hardware/software that is

compliant with and fielded in accordance with the Joint Interoperability Test Command (JITC) approved configuration and Military Unique Deployment Guide (MUDG).

5.2.1 JOINT INTEROPERABILITY TEST COMMAND CERTIFICATION

All proposed UC system hardware and software shall have received JITC certification in accordance with the latest version of the DoDI 8100.4, Unified Capabilities before the system can connect to the DoD Information Network (DoDIN). All proposed system hardware and software shall have a valid JITC certification by the Test Readiness Review (TRR). Connection to the DoDIN will not be authorized until certification is updated and the system is fielded in accordance with the certification letter and applicable JITC deployment guides.

Non-certified or expiring JITC certified systems may be proposed provided a road map and Plan of Actions and Milestones (POA&M) is included in the offeror's proposal indicating that JITC certification will be achieved prior to TRR. Additionally, the offeror shall provide a mitigation plan in the event the proposed system does not achieve the required JITC certifications by TRR.

5.2.2 RISK MANAGEMENT FRAMEWORK FOR DoD INFORMATION TECHNOLOGY

Before the proposed hardware and software solution can be connected to the DoDIN via the MCEN, all system hardware, software, and ancillary equipment shall be Cybersecurity compliant IAW the latest version of the technical controls mandated by *DoDI 8510.01, Risk Management Framework (RMF) for DoD Information Technology (IT)*. In addition, the contractor shall assist the Government by providing, developing, and submitting any necessary system documentation, settings, specifications, and hardening (application of Security Technical Information Guides (STIG), vulnerability scans, testing and installing patches, and vulnerability mitigation) required to update the Government Assessment and Authorization (A&A) package and entry into the Marine Corps Certification and Accreditation Support Tool (MCCAST v2). The delivered system will be incorporated to the BAN/LAN Site Accreditation following installation.

5.2.3 SECURITY AND TECHNICAL IMPLEMENTATION GUIDES, SECURITY REQUIREMENT GUIDES, AND ASSURED COMPLIANCE ASSESSMENT SOLUTIONS SCANS

The Contactor shall apply all applicable Defense Information Systems Agency (DISA) STIGs and Security Requirement Guides (SRGs) to all applicable hardware and software. This shall require the contractor to perform system vulnerability scans, system setting adjustments, software updates/patches, or system hardware/software reconfigurations and hardening. The contractor shall provide applicable STIG checklists; vulnerability scans with the DoD-approved Assured Compliance Assessment Solutions (ACAS) scanning tool, and a POA&M with mitigations and estimated completion dates for all open Cybersecurity findings. ACAS Vulnerability findings are defined as Critical/High = Category (CAT) I, Medium = CAT II, and Low = CAT III. STIG findings are defined as follows: CAT I, CAT II, and CAT III. All CAT I vulnerabilities shall be remediated or mitigated. All CAT II/III vulnerabilities must be remediated if a patch is available and STIG/SRG settings are configured without affecting system functionality. If a patch/STIG/SRG setting is not available or affects operational functionality, an acceptable mitigation (i.e., current processes or measures that reduce vulnerability exposure) must be provided in the POA&M with recommended completion dates.

All ACAS scans will be accomplished using the DISA Field Security Operations (FSO) scan policy Government Furnished Information (GFI) and latest ACAS plugin definitions available on the DoD Patch repository at the time scans are conducted. Contractor shall ensure all ACAS scans are completed with proper credentials and IAW the latest policies and guidelines as defined by DISA and/or the U.S. Marine Corps. All automated and manual STIG/SRG settings shall be applied.

5.3 CONTRACT PROJECT PHASES

The accepted Request for Proposal (RFP) design constitutes the Conceptual Design baseline and is the starting point for every contract project.

This section identifies the Project Phases and Project Milestones/Reviews associated with this contract. These milestones include, but are not limited to, all the system technical reviews and audits ensuring the engineered design satisfies the PRS outlined in Part 8 of the PWS, Site Specific Requirements, and NCI Systems Engineering Plan (SEP). This timeline represents “Tailored Conformance” to meet a Systems Engineering Approach as directed by DoD guidance. The contractor’s Contract Schedule shall include, at a minimum, all of the events identified in this section, beginning with Site Task Award, to mitigate potential adverse impacts to cost, performance, and schedule.

The NCI Contract Notional Timeline depicted in Figure 1 identifies the sequence of events for the contract.

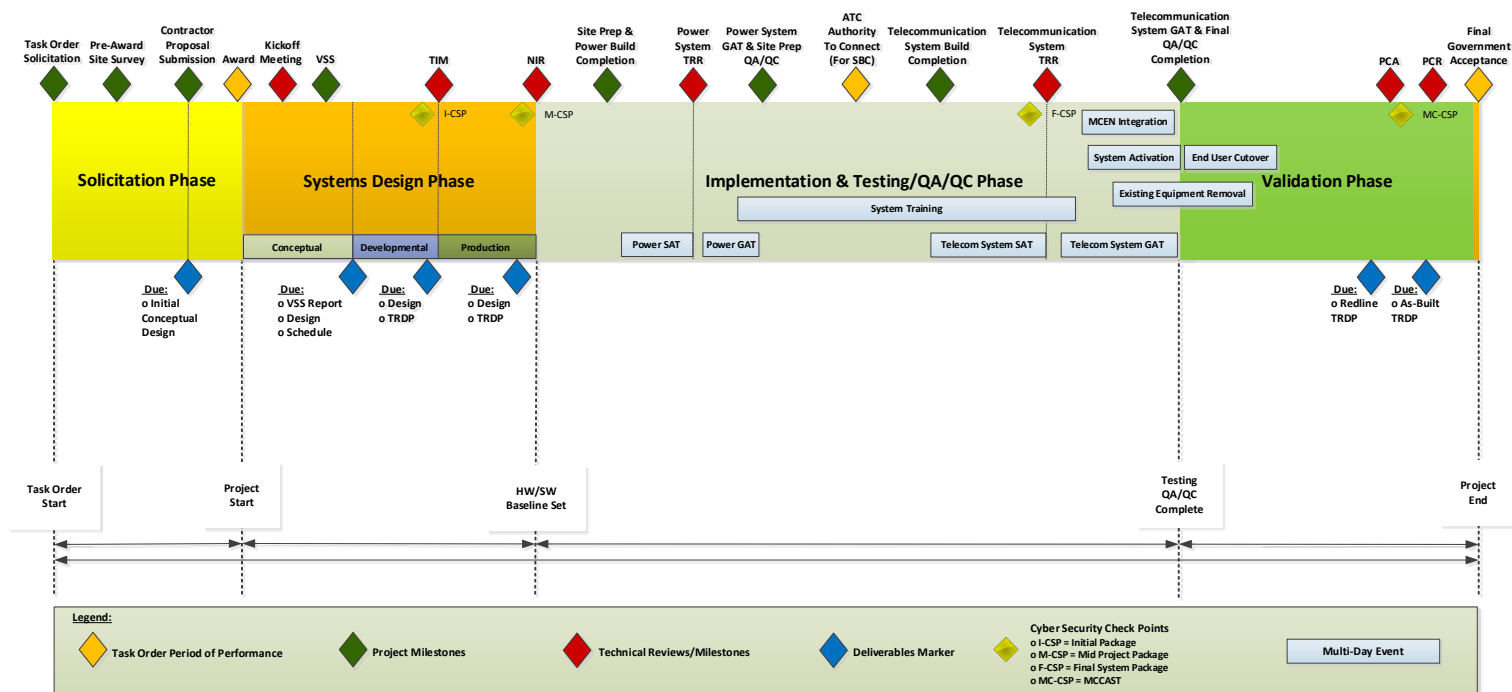


Figure 1 – Notional Timeline

5.3.1 PROJECT MILESTONES AND EVENTS

The Notional Timeline depicted in Figure 1 coincides with the expected Contract events beginning with the Contract Solicitation. Mapping these design stages to NCI programmatic, Implementation Phases are as follows.

5.3.1.1 CONTRACTOR PROPOSAL SUBMISSION

The contractor shall submit a proposals within 30 calendar days from receiving the Request for Proposal from the Government. The proposal shall contain the contractor's proposed conceptual design and architecture, pricing, materials and equipment list, project plan, and project timeline including all the events identified in the notional timeline (durations, dates, and the proposed period of performance).

5.3.1.2 SYSTEM DESIGN PHASE

The System Design Phase is initiated with the Award, signifying the start of the period of performance. Subsequent to the Award, the Government shall hold a Post Award Kick-off meeting. This Phase shall also include a contractor Verification Site Survey (VSS) to validate assumptions made on the information provided as part of the PWS. Throughout the duration of this Phase, the contractor shall deliver a detail system design and Technical Data Package (TDP) to be reviewed at designated technical reviews.

The contractor shall also deliver Cybersecurity documentation prior to the associated technical review events IAW the timelines identified in Table 2 - Contract Deliverables Matrix.

Table 2 – Contract Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Project Schedule	Proposed: fifteen (15) Calendar Days after the start of the VSS Monthly: NLT the last day of every month (Ad hoc Project Schedule Reports may be Requested)	MS Project 2016 and PDF
2	Conceptual (Proposed) Design	Revised: NLT 15 (15) calendar days after the VSS	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF
3	Verification Site Survey Report	NLT fifteen (15) calendar days after the VSS.	VSS Report: Contractor Format (PDF or Microsoft Office Word 2016 or later)
4	Technical Data Package	Developmental: NLT fifteen (15) calendar days prior to the TIM. Production: NLT fifteen (15) calendar days prior to the NIR. Red Line: NLT the completion of Cutover. As-Built: NLT fifteen (15) calendar days prior to the PCR.	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF M&E List: Microsoft Office Excel 2016 or later HW/SW Baseline: Microsoft Office Excel 2016 or later
5	RTM	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
6	SAT Plan	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
7	ACAS Scans Schedule	Initial: NLT fifteen (15) calendar days prior to the TIM. Final: NLT fifteen (15) calendar days prior to the NIR.	Contractor Format (PDF and Microsoft Office Project 2016 or later)
8	Cyber Security POA&M	Initial: NLT fifteen (15) calendar days prior to the TIM. Revised: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the Telecommunications Systems TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
9	Technical Controls	Initial: NLT fifteen (15) calendar days prior to the TIM.	Contractor Format (PDF or Microsoft Office Excel 2016 or later)

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Item Number	Item Title	Due	Deliverable Format
		Revised: NLT fifteen (15) calendar days prior to the NIR.	
10	Safety Assessment Report (SAR)	NLT fifteen (15) calendar days prior to the NIR.	Contractor provided format (PDF and Microsoft Office Excel 2016 or later)
11	Site Prep TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
12	Telecommunications TPTCTS	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
13	Cutover Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
14	IUID Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
15	STIG/SRG Check List	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	Native format
16	ACAS Vulnerability Scans	Current: NLT fifteen (15) calendar days prior to the Power Systems TRR.	.nessus File format
18	Completed Telecommunications System TPTCTS	NLT ten (10) calendar days after the Telecommunications System GAT.	Government provided format (Microsoft Office Word 2016 and PDF)
19	Warranty Procedure Guide	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
20	Installations, Operations and Maintenance, and SW User Manuals	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
21	MCCAST Import Template	Current: NLT fourteen (14) prior to the PCR	Native format
22	Asset Shipping Report	An ASR shall be provided with each equipment shipment to ES&D.	Government-provided Format (Microsoft Office Excel 2016 or later)

The System Design Phase consists of three design levels: Conceptual, Developmental, and Production. (Reference Section 5.7.1.1 – Product Drawings and Associated Lists)

Conceptual Design provides the framework for the allocated baseline by defining the system and subsystem architectures and is delivered or established at proposal. The design shall include hardware and software lists, depiction of critical support system interfaces and any underlying services architectures as well as identification of all system CNs, DNs, and EUBs to ensure that the proposed system has an expectation of being operational, feasible, and satisfies the site-specific requirements.

Developmental Design describes the integration approach and is used to evaluate and validate that the design meets the required performance. This information is used to produce materiel for test and for the analytical evaluation of the inherent ability of the design approach to attain the required performance. This design level shall include but not limited to any updates associated with the Conceptual Design, all impacted building floor plans (both top and elevation views), wire, fiber, power, and grounding routing details, all rack/cabinet and ladder tray drawings. These design components shall be delivered prior to the Technical Interchange Meeting (TIM) for technical review and adjudication.

Production Design is a detailed and complete design that captures any updates to the Conceptual and Developmental Designs and shall include but not limited to all components, recommended spares, and applicable repair parts. The production design shall also include all applicable detailed wiring and cabling schematics. These design components shall be delivered prior to the Non-Developmental Item Integration Review (NIR) for technical review and adjudication.

5.3.1.2.1 AWARD KICK-OFF MEETING

The Kick-off meeting shall be a review and discussion of the documents provided in the contractor proposal submission and provide a forum for both the Government and contractor to reach consensus on all project implementation expectations. Government will provide applicable deliverable templates to contractor. The contractor shall deliver their proposed project schedule at the kickoff meeting.

5.3.1.2.2 VERIFICATION SITE SURVEY

The contractor shall proceed to the place of performance to conduct a Verification Site Survey (VSS) within twenty (20) calendar days of Contract Award. The purpose of the VSS is to provide the contractor(s) an opportunity to validate assumptions made on the site information provided in the PWS. Coordination of the VSS visitation shall be facilitated by the NCI Project Manager, the contractor, and the site TSO. The VSS Report, Revised Conceptual (Proposed) Design, and the Baseline Project Schedule shall be provided to the Government IAW the criteria and timeline identified in Table 2 - Contract Deliverables Matrix. The VSS Report shall provide an accurate description of the existing conditions and identify any potential discrepancies or changes to the proposed design. Upon Government review and acceptance, authority to proceed to Developmental Design shall be granted and the Baseline Project Schedule established.

5.3.1.2.3 TECHINICAL INTERCHANGE MEETING

The TIM is an informal meeting that fosters the exchange of ideas through open discussion and participation. The purpose of the TIM is to provide a forum for problem solving and information sharing between Government and contractor personnel that encourages cooperation and fosters

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collaboration in resolving technical and engineering deficiencies and/or discrepancies. TIMs are to be conducted when necessary as determined by the COR/Project Manager. The contractor shall conduct at least one on-site TIM at the place of performance to adjudicate the results of the Government's review of the Developmental Design.

5.3.1.2.4 NON-DEVELOPMENTAL ITEM INTEGRATION REVIEW

An NIR is a multi-disciplined product and process assessment to ensure the system under review can proceed into the Implementation & Testing and Quality Assurance (QA)/Quality Control (QC) Phase. This review assesses the TDP artifacts and reviews the Production Design. The contractor shall participate in a Government lead NIR IAW the NCI SEP. The NIR is a formal milestone review requiring Government acceptance. Successful completion of the NIR will establish the product baseline. The contractor shall demonstrate that the Detailed Design satisfies the specifications identified in the Contract Solicitation and the Site Specific Requirements (SSR). The contractor shall present a test and system cutover for the purpose of performing design verification and validation. The contractor shall also prepare and provide a Safety Assessment Report (SAR). The SAR shall identify the contractor's mitigation of any safety and environmental hazards identified in the NCI Programmatic Environment, Safety and Occupational Health, and Evaluation (PESHE).

5.3.1.3 IMPLEMENTATION, TESTING, AND QA/QC PHASE

The Implementation, Testing, and QA/QC Phase shall begin with the acceptance of all deliverables associated with the NIR milestone. The contractor shall execute the system build to the accepted Production Design, beginning with Site Preparation and Power System installations, followed by installation and integration of the telecommunications systems components. The contractor shall provide continuous oversight of all subordinate contractors in accordance with all aspects of program management.

5.3.1.3.1 SITE PREPARATION BUILD COMPLETION

This milestone incorporates the procurement and installation of all required system infrastructure, including, but not limited to, system racks, cabinets, and ladder racking. Upon completion of this milestone, the contractor shall ensure the installation complies with all local and regulatory requirements.

5.3.1.3.2 SYSTEMS ACCEPTANCE TEST AND GOVERNMENT ACCEPTANCE TEST

Test and Evaluation (T&E) is an integral part of the systems engineering process. System/Subsystem Testing demonstrates the delivered solution fulfills the requirements and specifications of the PWS. Testing shall be performed in two phases, the System Acceptance Test (SAT) and the Government Acceptance Test (GAT). Separate SAT/GAT events will be performed for Telecommunications systems. SAT shall be contractor-performed testing that occurs prior to TRR. The Government will observe the SAT.

It is expected that the contractor shall install and test system/subsystem components without connection to the DoDIN/MCEN. As a result, the contractor may not be able to complete all required system and sub-system testing during SAT. It is expected that systems and subsystems requiring MCEN connection are hardened. The GAT leverages the final SAT documents provided by the SI to determine testing that demonstrates system-wide functionality of hardened devices. The government

will attend any contractor(s) scheduled SAT testing events to ensure test data integrity. GAT will be the final test event and all connections and interfaces shall be established during this time.

5.3.1.3.3 TEST READINESS REVIEW

The TRR is a significant multi-disciplined technical review designed to ensure the system and/or subsystem under review is ready for Government testing and functions as the transition from SAT to GAT. The TRR assesses test objectives, test methods and procedures, test scope, and safety to confirm required test resources have been properly identified, made available, and coordinated to support planned tests. The TRR verifies the traceability of planned tests through the use of the RTM. It determines the completeness of test procedures and their compliance with test plan descriptions. The TRR also assesses the system under review for development maturity, cost/schedule effectiveness, and risk to determine readiness to proceed to formal testing.

5.3.1.4 VALIDATION PHASE

The Implementation Phase shall transition into the Validation Phase upon successful completion of the Telecommunications System GAT and the final QA/QC inspection.

5.3.1.4.1 CUTOVER

Cutover is the process of migrating existing circuits and end-user services (voice and data) from legacy systems to the newly installed contractor-provided solution. The contractor shall develop a detailed Cutover Plan to support cutover. The Cutover Plan shall provide the approach, schedule, required Government resources, system outages, and fall back plan.

The contractor shall be responsible for performing a flash cutover, unless deemed impractical due to technical, logistical, or base operational constraints, of all services identified in this document. This shall include capturing and validating existing system's database and subscriber information, transferring information, configuring, and deploying the new system to the end-user device. This information includes, but is not limited to, dial plans, subscriber features and capabilities, call lists, settings and configurations. The cutover shall also include hardware and patching of existing subscribers and services inside the closets and at the end user locations. Cutover methods utilized shall minimize service-affecting outages and be described in detail in the Cutover Plan.

The contractor shall conduct service-affecting cutovers of systems outside normal duty hours with minimal downtime as designated by the TSO. During system cutover, the contractor shall establish, staff, manage and support all on-site help desk functions and responsibilities to include customer calls, creating trouble tickets and logs, tracking reports for active and closed tickets, answering subscriber questions and correcting deficiencies, and coordinating with the TSO to prioritize trouble tickets. An electronic and paper copy of the Trouble Ticket Log shall be maintained on-site for Government inspection during cutover. The Trouble Ticket Log shall be turned over to the Government after resolution and closure of all Trouble Tickets directly attributable to the contractor's solution.

5.3.1.4.2 SYSTEM OUTAGES

Any work requiring system downtime shall occur during off-duty/weekend hours, be kept to a minimum, and not occur without specific acceptance from NCI Project Manager and the site TSO. The contractor shall submit a system recovery/fallback plan for review and acceptance for all scheduled outage. The system recovery/fallback plan shall be provided as part of the Cutover Plan.

5.3.1.4.3 REMOVAL OF EXISTING EQUIPMENT

Upon Government approval, the contractor shall decommission, disconnect, de-install, dismantle, and remove all displaced core switching equipment. . The contractor shall remove any system anchors, brackets, and racks protruding from the floors and/or walls. The contractor shall ensure that no active service is disrupted during the switch or equipment removal and shall be liable for any costs incurred by the Government to restore disrupted service. All replaced core switching equipment shall be removed and properly disposed of by the contractor.

Existing equipment identify by the Government for reuse and redistribution will be turned over to the Program Office upon removal. Disposal of all equipment shall be coordinated through the TSO and the Installation's Defense Logistics Agency - Disposition Services (DLA-DS) to ensure compliance with Government disposal procedures. The contractor shall provide the Government with a document identifying all replaced core switching equipment. At a minimum, the following fields shall be included: name, part number, description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

5.3.1.4.4 PHYSICAL CONFIGURATION AUDIT

The Physical Configuration Audit (PCA) shall be conducted to determine conformance of the as built configuration to the product baseline with the TDP. The PCA shall be a joint audit conducted by the contractor and Government. The results of the audit shall be documented by the contractor and adjudicated by the Government before Project Closeout Review (PCR) for inclusion in the As-built TDP.

5.3.1.4.5 PROJECT CLOSEOUT REVIEW

The Project Closeout Review (PCR) shall be conducted to verify all project requirements have been satisfied, all deliverables have been submitted to the Government, and all Government administrative actions have been completed.

5.4 PROJECT ADMINISTRATION/MANAGEMENT

5.4.1 PROJECT PLAN

The contractor shall establish, deliver, and ensure that a Project Plan remains in effect throughout the project period of performance. At a minimum, the Project Plan shall focus on and align with the Project Schedule. The Project Plan should address areas such as Safety, Configuration Management, and Risk Management. The Project Plan shall clearly demonstrate an understanding of the project timeline and associated milestones for the project and how the contractor plans to satisfy the requirements of the PWS. The Project Plan shall address a management approach and highlight actions that will be taken to mitigate risk to cost, schedule, and performance, highlight any possible positive or negative impacts, and provide details on the process to deal with unforeseen site conditions, schedule slips, or other problems of program risks. The Plan shall describe the contractor's approach to Resource Management and shall identify the project team.

5.4.2 PROJECT SCHEDULE

The contractor shall deliver and maintain an accurate and up-to-date project schedule that accurately reflects the current status of the project progress and resources. To ensure proper management and accuracy of the project schedule, the contractor shall coordinate and consult with relevant stakeholders throughout the course of the project. The project schedule shall include all significant events, detailing each sequence of work that should be completed, identify major milestones and tasks from start to completion of the project, as well as include all critical path events. At a minimum, the project schedule shall identify the following columns: Start, Finish, Baseline Start, Baseline Finish, Duration, and Percent Complete for each task, to include the associated task paths (successors, predecessors, etc.). The contractor shall deliver the proposed Project Schedule within twenty (20) calendar days after the start of the VSS. The Government will then have fifteen (15) calendar days to review and coordinate with the contractor any necessary corrections and updates in order to establish a baseline schedule. The accepted project schedule will then become the baseline and will not change throughout the duration of the project, except in the event of contract modifications that impact the project schedule (scope increase/decrease, etc.).

The contractor shall reference and adhere to the guidance in the NCI Schedule Management Plan.

5.4.3 MEETINGS

The contractor shall plan, host, attend, coordinate, support, and conduct meetings, formal reviews, conferences, and audits required during the period of performance of this contract. Meetings shall be conducted at either Government or contractor facilities, or via conference call/video teleconference. The contractor shall prepare agendas and meeting presentation materials for each meeting. The contractor shall also provide minutes and reports following each meeting. The minutes must include a summary of all action items, dates assigned, responsible parties, and estimated completion dates of testing.

5.4.3.1 PROJECT STATUS REVIEW MEETINGS

The contractor shall plan, host, coordinate, and conduct a Project Status Review (PSR) each week throughout the period of performance for the purpose of reviewing and updating the Government on the current status of the project. To support the administration and management of the Weekly PSR, the contractor will provide a Meeting Agenda, Action Items List, and Project Schedule two (2)

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calendar days prior to the execution of the Weekly PSR. In addition, the contractor shall provide meeting minutes NLT two (2) calendar days after the PSR.

The Meeting Agenda will address, at a minimum, the following areas of concern:

1. Introductions/Documentation of Attendance
2. Summary of Week's Activities
 - a. Issues encountered and resolutions taken to address
 - b. Issues encountered and still unresolved
 - c. Completed activities for the week
3. Activities Planned for the following week
4. Overall Project Status Review
5. Action Item/Register Review
6. Review Deliverables Status
7. Review any changes to the TDP and Design Drawings (Redline Drawings)
8. Materials Status
 - a. Discuss preformed Quality Reviews and the results
9. Coordination Resolution of any identified deficiencies
10. Discussion of Upcoming Significant Events; possible issues and mitigations (as needed)
11. Project Schedule Review relative to the Baseline Project Schedule for thirty (30) calendar days before and thirty (30) calendar days after the PSR
12. Coordinate any staffing updates to the project team(s)
13. Additional Questions/Open Forum
14. Meeting Summary/Assigned Action Item Review.

An Action Item List shall be maintained and delivered as part of the contractor's weekly progress. Closed action items shall only be presented one time. The Action Item List shall contain the following tabs at a minimum:

1. Meeting Attendees
2. General
3. Site Prep
4. Data
5. Voice

6. Schedule Review
7. Deliverable Review
8. Closed
9. Risk Log
10. Personnel
11. Shipping
12. Damage Incident Log
13. Stakeholder Contact Info
14. Risks Matrix

5.4.4 QUALITY CONTROL

The contractor shall develop and maintain an effective quality control program to ensure services are performed in accordance with this PWS. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The contractor's quality control program is the means by which he assures himself that his work complies with the requirement of the contract. The contractor shall provide a written Quality Control Plan (QCP) with the IDIQ proposal. Any changes arising from this effort will be incorporated into any subsequent award. Post-award changes to the QCP shall be submitted to the Contracting Officer and COR within five (5) calendar days of the affected change. The Contracting Officer will provide written acceptance of any proposed changes after delivery of the revised QCP. In addition, the contractor shall incorporate the following minimum elements into the QCP.

- Definition of contractor quality control management lines of responsibility
- Quality Control Management System Process
- Internal Design Review/Change Control Process
- Internal Document Control Process
- Process for Testing
- Process for the execution of Corrective Actions
- Process for maintaining Quality Assurance records throughout the project lifecycle
- Process for performing random internal Quality Control audits.

5.4.4.1 QUALITY ASSURANCE

The Government will evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP). This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable quality levels. The contractor shall provide an assessment detailing their conformance to both the technical and programmatic management of the contract.

5.5 LOGISTICS SUPPORT

The contractor shall provide dedicated logistic support to plan and coordinate efforts that integrate logistics and life cycle support considerations into the design of the system. The effort shall be conducted as an integral part of the development, integration, and test processes to define the range and depth of the required support, to develop supportability data products, and to address all applicable elements of logistics.

5.5.1 LOGISTICS MANAGEMENT

A joint Government/contractor coordination shall be established to monitor the status of the program implementation. The coordination will be conducted to address logistic matters, schedules, warranty, and PWS performance. The Government will oversee and monitor the contractor's implementation of applicable logistics elements during the project period of performance and throughout the warranty period. The Government has the right to request status of what's in place in and in storage at any time during the contract.

5.5.2 ITEM UNIQUE IDENTIFICATION

The contractor will develop an Item Unique Identification (IUID) Plan and implement specific IUID markings, in accordance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.211-7003, DFARS 252.245-7001, SECNAVINST 4440.34, MIL-STD-130N to include recommendations for marking of spare assemblies and subassemblies, components, and parts below \$5,000 and highly pilferable to include recommendations for marking of spare assemblies, subassemblies, components, and parts below \$5,000. The Government shall make the final determination for IUID marking of items below \$5,000. All spare parts, secondary repairable items, and consumables that exceed \$5,000 and Government selected items under \$5,000 will be marked with the item IUID prior to delivery to the Government. The IUID marking shall be incorporated into existing data plates when possible. Bar coding and the two dimensional IUID data matrix shall be machine-readable with common optical scanning devices and be accompanied by the corresponding human readable markings when practical. All 2D data labels shall be permanently affixed and shall ensure its readability during normal operational use. The plan shall also describe the marking process and identify marking locations for each item identified. The contractor will identify the location of approved IUID markings within all drawings.

The contractor will load all IUID data into the DoD IUID Registry NLT fifteen (15) calendar days after completion of the PCA. Additionally, the contractor shall load all serial items to include IUID data into invoice Receipt Acceptance and Property Transfer (iRAPT) formally known as Wide Area Work Flow (WAWF). The contractor will provide an IUID Marking Activity and Verification Report for each system and spares delivered to the Government. The IUID Marking Activity and Verification Report will include a listing of all IUID assigned numbers by Contract Line Item Number (CLIN), Sub-Line Item Number (SLIN), or Exhibit Item and contain the model number, part number, serial number (if applicable), and parent/child relationship.

5.5.3 PARENT END ITEM DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI data plate. The Parent End Item 2D matrix shall contain human and

machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. The minimum data plate information for NCI Parent End Items are as follows:

1. Nomenclature
2. NSN (if available)
3. Design Activity: (MFR ID Cage Code)
4. Serial Number
5. Government Ownership Designation: U.S. Property
6. Contract Number
7. Two-dimensional IUID data matrix
8. Unique Item Identifier (UII).

5.5.3.1 SUB ASSEMBLY DATA PLATE INFORMATION

The contractor will use Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the NCI sub-assembly data plate. The Sub-Assembly 2D matrix shall contain human and machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. All applications must be permanently affixed, as well as human and machine-readable when the necessary space is available. For sub-assembly items that do not currently utilize a data plate, the contractor will refer to MIL-STD-130N to develop best business practices for a display of the data elements below. The IUID data plates shall display the following minimum information:

1. NSN (if available)
2. Part Number
3. Serial Number
4. Manufacturer Cage Code
5. 2-dimensional IUID data matrix
6. Unique Item Identifier.

5.5.4 WARRANTY

The contractor shall provide a full, unlimited one-year warranty for all contractor provided hardware/software, materials, and workmanship. The warranty shall begin immediately upon Final Government Acceptance of all items delivered under this contract.

The contractor shall establish and maintain a warranty performance system that identifies and documents all items to be warranted under this contract. Each item warranted shall be indexed and identified by serial number, model number, part number, Unique Identification (UID), warranty period, Original Equipment Manufacturer (OEM), and date of acceptance by the Government. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each item shall be provided to the Government in the form of a Warranty Procedures Guide and shall be maintained by the contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and made available for Government review upon request or during scheduled meetings and/or reviews throughout the life of all warranted items used in all production phases of the NCI Program.

All costs for shipping and handling for warranted items from and to the field activity are the responsibility of the contractor. The warranty period will cover all hardware, software/firmware, materials, installation services, applicable Software (SW)/Cyber Security (CS) updates, and workmanship provided for the overall system design solution. Hardware/Equipment warranty will include repair and return services for all hardware/equipment replacement that will be configured with software/firmware and ready to install upon receipt.

5.5.5 ENVIRONMENTAL SAFETY AND HEALTH

5.5.5.1 SYSTEMS SAFETY

The contractor shall identify all hazardous material associated to the newly installed equipment and deliver the applicable Material Safety Data Sheet (MSDS) to the Government. The contractor shall identify and evaluate safety and health hazards and define risk levels that manage the probability and severity of all hazards associated with development, use, and disposal of the system in accordance with MIL-STD-882D. Residual risks will be evaluated by the Government in accordance with Tables A-I through A-IV of MIL-STD-882D and reviewed for acceptance or further risk mitigation action IAW the PESHE.

5.6 GREY MARKET ITEMS, LICENSE TRANSFERABILITY, AND END USER TERMS AND CONDITIONS

In order to minimize the risk of the Government purchasing counterfeit products or unauthorized secondary market equipment, which would not be supported by the OEM, and to ensure that the Government purchases only equipment that is genuine (i.e., not counterfeit), authorized (e.g., not gray market, includes appropriate licenses, etc.), and supported (e.g., warranty and support services) by the OEM, when it submitted its proposal, the contractor, for:

Hardware: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of the proposal and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor warrants that all products provided under this contract are new. By submitting any proposal under this contract, contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of contract award. Contractor agrees that it will provide a list of serial numbers for any hardware provided or installed. Failure to provide this information may result in delays to acceptance and payment. The Government will use this information to confirm with the Manufacturer or OEM that the hardware is (1) genuine (not counterfeit) and (2) authorized hardware that has been sourced and provided in accordance with the Manufacturer's applicable policies (e.g., not gray market or diverted). If the Manufacturer indicates that the hardware meets these two requirements, the Government will notify the contractor. If the Manufacturer indicates the hardware does not meet these two requirements, the Government may reject the hardware, revoke acceptance, or pursue any other available and appropriate remedies under the contract.

Software: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of award and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in

accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor shall warrant that all products are new, or, in the case of downloadable software, that all software is sourced from the OEM or Authorized Reseller. By submitting its proposal contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of this contract. Contractor shall certify that it has notified the software Licensor that the United States Marine Corps (Buyer) will be the Licensee. Contractor shall have provided, with any proposal, a copy of the End User license Agreement (EULA), Terms of Service (TOS), or other similar legal instrument or agreement and warrants that all Manufacturer software is or will be licensed originally to Buyer as the original Licensee authorized to use the Manufacturer Software. Note the provisions of FAR 52.212-4(u) apply.

Maintenance: If, during performance of any maintenance required under this contract, the contractor provides replacement hardware or software, then the above Hardware, Software, or both requirements, including all required certification and compliance requirements, apply. The contractor shall ensure that the Government shall have full rights and entitlements to any software maintenance procured under this contract for software for which it has been identified as the original licensee or for which a license is subsequently transferred to the Government.

Hardware, Software, and/or Maintenance: If the contractor is not a Manufacturer Authorized Partner as of the date of the submission of its proposal then, as applicable, contractor shall submit with its proposal a document, from the Manufacturer, that identifies the Vendor by name and states the following:

- (1) That the products proposed (including hardware, software, and/or support services) are genuine (i.e., not counterfeit and not unauthorized secondary market/gray market products) (note: all items, including part numbers where applicable, shall be listed in the document);
- (2) That contractor has the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, in accordance with the applicable Manufacturer certification/specialization requirements;
- (3) That contractor will be able to receive from Manufacturer, and that Manufacturer will not deny, the support services required to support the product(s);
- (4) That contractor has the authority to transfer to the Government all appropriate software licenses associated with the product(s) at no additional cost to the Government; and
- (5) That Manufacturer will not deny required warranty support for the product(s).

The Government's remedies for the contractor's failure to provide conforming products or services consistent with the above requirements are detailed in FAR 52.212-4, with emphasis on paragraphs (a), (m), and (u).

This contract contains the clauses, terms, and conditions acceptable to the Government. Any hardware, software, or maintenance provided under this contract that contains conflicting terms or conditions, including but not limited to an EULA, Software License Agreement (SLA), Purchaser User Rights (PUR), Product User Rights (PUR), Software User Rights Agreement (SURA), Support Agreement, Maintenance Agreement, or any other vendor or OEM-specific agreements regardless of how titled or described, may be considered unacceptable. The contractor is on notice that if they

choose to submit a document containing terms and conditions, they are required to demonstrate that those terms and conditions do not conflict with, or differ from, this contract's terms and conditions, as well as any statute or regulation (e.g., FAR and DFARS). The contractor must provide the Government with an opportunity to review, modify, and approve any relevant EULA, SLA, SURA, PUR, or any other similar OEM-specific agreement, related to items procured under this contract for which the Government will be the licensee or will otherwise take title to. Compliance with this section is a component of technical acceptability for any proposal and for final project acceptance. Vendor-specific or OEM-specific terms and conditions that conflict with statutory or regulatory requirements, or are otherwise disadvantageous to the Government as noted above, may be determined unacceptable.

5.7 DELIVERABLES

5.7.1 TECHNICAL DATA PACKAGE

The contractor shall develop a TDP that contains Engineering Design Plan (EDP), design specifications, and drawings describing and depicting the solution and configuration of all systems and subsystems delivered in support of MCB Quantico's Contract. The review and acceptance process for all design specifications and drawings include a Conceptual Design data package, Developmental Design data package, Production Design data package, Redlines Drawings and As-Built Drawing package. The format for the TDP will be provided to the contractor by the Government at the Contract Kickoff meeting. The TDP shall consist of the Engineering Design Plan, Engineering Design Drawings, Systems Configuration Hardware/Software Baseline (CMDB File), and Materials and Equipment List to include Long Lead Items List. All increments of the TDP shall be delivered in accordance with the timelines identified in Figure 1 and the criteria outlined in Part 8, Technical Exhibit 2, Deliverables Schedule and IAW MIL-STD 31000B, ASME Y14.100, ASME Y14.24, ASME Y14.35M, and ASME Y14.34M.

The contractor shall document all design modifications and/or revisions to the accepted Production Design Data TDP via an ECP IAW the CMP. The ECP shall include updated the Red-line Engineering Design Package that accurately depicts the proposed engineering change. Revisions to the Redline drawings shall be provided every thirty (30) calendar days and previous drawing revisions implemented to produce an updated version. The Redline TDP will be used to perform the Physical Configuration Audit (PCA). Any changes to the redlined drawings and/or CMDB file will be recorded during the Physical Configuration Audit (PCA) and documented in the As-built TDP. The contractor shall provide the As-built TDP at the completion of the project at the Project Closeout Review (PCR) and incorporate all design changes and modifications performed during the implementation.

The contractor shall deliver a Draft CMDB File along with all other required artifacts of the TDP IAW Figure 1 - Contract Notional Timeline as part of the Technical Review Data Package for the Technical Interchange Meeting (TIM), that contains all relevant information about the hardware and software/firmware components provided in the accepted engineering design and the relationship between those components. The contractor shall deliver the Final CMDB file along with all other required artifacts of the TDP as part of the TRDP for the NIR. The CMDB provides an organized view of configuration data and a means of examining that data from multiple perspectives. The CMDB File shall identify all Configuration Items (CIs) delivered under this contract and the associated information and the interface between system components.

As part of the Materials and Equipment List, the contractor shall provide the OEM recommended minimum essential spare parts for DWDM equipment and systems provided under this PWS in order to alleviate system downtime in the event of a critical DWDM hardware failure. The minimum essential DWDM spares shall be identified separately in the Materials and Equipment List. The contractor shall restock any spare DWDM parts utilized during the modernization effort and warranty period.

5.7.1.1 PRODUCT DRAWINGS AND ASSOCIATED LISTS

The contractor shall develop and deliver a TDP with the associated lists and artifacts describing and detailing the installation and configuration of all systems and subsystems delivered in this contract. This process may require the revision and update of existing drawings, and/or development of new drawings to meet the requirements of TDP drawings and associated lists. Only FINAL versions of the Conceptual, Developmental, Production, Redline, and As-Built data packages will be considered for acceptance by the government and represent fulfillment of the deliverable requirements. Existing, revised, new product drawings, and associated lists shall be used as the engineering data for procuring, controlling, using materials, parts, and assemblies whether produced in-house or supplied by the contractor. The drawings shall be used for the manufacture, assembly, provisioning, inspection, testing, and Configuration Management (CM) of the materials, parts, modules, subassemblies, assemblies, and product baseline of the hardware and software delivered in this contract. The TDP and associated lists shall not carry any proprietary markings. The contractor shall provide the necessary design, engineering, manufacturing, and quality assurance requirements necessary to enable the procurement or manufacture of an interchangeable item that duplicate the physical and performance characteristics of the original product. This must be accomplished without any additional design engineering effort or recourse to the original design activity.

1. The contractor shall comply with MIL-STD-3100B, "Technical Data Packages".
2. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
3. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
4. The contractor shall comply with the ASME Y14 Standards and lessons learned to improve the use of the Title Block, Revision Block, Sheet Numbering, and add Parts Lists and a Master Parts List Drawing Type.
5. The contractor shall comply with Installation Design Plan (IDP) drawing codes. (shown in Table 3).

Table 3 – Engineering Design Drawing List

IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
DT	DT	Drawing Tree	D, P, RL, AB
000	000	Functional Interface Diagram (Architecture Drawings)	D, P, RL, AB
010	000	Site Master Index	D
020	200	Installation Master Drawing	D, P, RL, AB
022	100	Master Parts List	D, P, RL, AB

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IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
023		Technical Data Summary	D, P, RL, AB
040	400	Floor Plans and Elevations	D, P, RL, AB
050	400	Antenna Layouts and Elevations	D, P, RL, AB
060	500	Simplified Block Diagrams	D, P, RL, AB
070	500	Cable Block Diagrams	D, P, RL, AB
090		Cross Connect Records	P, RL, AB
100		Distribution Frame Layout	D, P, RL, AB
110	600	Circuit Diagrams	D, P, RL, AB
120	600	Labeling Details	P, RL, AB
130	600	Patch Panel Layouts	P, RL, AB
140		Power Distribution	D, P, RL, AB
160	300	Cable Routing Layouts	D, P, RL, AB
171	700	Mechanical Assembly and Mounting Details	D, P, RL, AB
180	800	Miscellaneous Installation Details	D, P, RL, AB
190		Miscellaneous System Configuration Details	D, P, RL, AB
LEGEND C–Conceptual, D-Developmental, P-Production, RL- Red Line, AB-As Built			

5.7.2 SYSTEMS ACCEPTANCE TEST PLAN

The contractor shall prepare a Systems Acceptance Test (SAT) Plan that encompasses all system and sub-system test activities planned for each system. The following areas shall be emphasized in the SAT Plan: Test Event, Purpose of the Test, Date of Test (Start and End), Location of the Test, Need for Government Test Support, Schedule of Individual Test Events, and Test Procedures.

5.7.3 TEST PROCEDURES, TEST CASES, TEST SCRIPTS

The Test Procedures, Test Cases, Test Scripts (TPTCTS) aligns with the SAT and GAT Plans; identify how each system is integrated, tested, and meets the specified system requirement. The TPTCTS shall include the following: Test Event; Test Diagram; Purpose of the Test; Test Entrance Criteria; Date of Test (Start and End), Location of the Test; Need for Government Test Support; Met, Not Met, or Met With Exception Criteria; and signature block for the Test Operator and Government Witness.

The Contractor shall provide TPTCTSs, as individual appendices to the SAT Plan for each system and sub-system delivered under the PWS. The Test Procedures shall include all test cases and test scripts to demonstrate all system and sub-systems meet the specific requirements of the PWS.

5.7.4 REQUIREMENTS TRACEABILITY MATRIX

To ensure compliance with all requirements, the Contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all requirements defined in the PRS and site-specific requirements. The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, demonstration) to validate the contractor's proposed system design for Government acceptance.

5.7.5 CUTOVER PLAN

The contractor shall develop a detailed Cutover Plan. The Cutover Plan shall provide the overall plan including the schedule, required Government resources, system outages, and fall back plan. In addition, the plan shall contain the system specific detailed procedures.

The contractor shall develop a detailed Cutover Plan for each system and subsystem. The Cutover Plan shall be system specific and shall include, at a minimum, a sequential list of events, detailed procedures, post-Cutover testing requirements/procedures, scheduled service outages/windows, service priority based cut-sheets, and system recovery/fall back plan. The Cutover Plan including any modifications must be accepted by the Government prior to commencement of cutover. Cutover shall not begin without a Government acceptance of the proposed cutover plan.

6 TRAINING

6.1 NEW EQUIPMENT TRAINING

For all non-Cisco OEMs, New Equipment Training (NET) shall be provided by the OEM or OEM certified trainers utilizing the Government approved course of instruction. NET shall consist of courses for administrators, operators, and maintainers (when deemed necessary). The contractor shall detail their training plan in their proposal. Where eLearning or web-based courses are involved a remote registry (user name and password) must be provided to the receiving units for access to the OEM courses. The courses shall not be more than eight hours in length each day and will be conducted Monday through Friday during normal business hours. Following completion of NET, Government approved comments received from attendees (Instructor Rating Forms, End of Course Critiques) shall be incorporated into the course to yield an improved product. The training shall be of sufficient depth and shall include "hands-on" time with the system to ensure that personnel are qualified to teach others (train the trainer concept) and to safely perform tasks in the intended operational environment. Training materials shall be provided IAW the requirements in the Section 6.1 - Training and Table 4 - Training Deliverables Matrix.

Table 4 – Training Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Training Plan	Initial: NLT fifteen (15) calendar days prior to the NIR. Final: NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
2	Training Materials	NLT fifteen (15) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
3	Training Material Updates	As required.	Contractor Format

6.2 TRAINING PERFORMANCE AND EVALUATION

The NCI Logistician and Manpower and Training (MPT) Lead will observe and evaluate the first instance of each training session. The contractor shall update the training materials (if applicable) in preparation for the next training event according to the comments received from attendees and MPT Lead's evaluations, recommendations, and comments. After each training event, all evaluation materials (tests, instructor rating form, and end of course critique) will be delivered to the MPT Lead for ongoing training analysis. An attendance roster shall be administered for each class substantiating each day of attendance and contain each student's basic information such as first and last name, grade, and Military Occupational Specialty (MOS) or Job Series. This roster shall also include class title(s), date and location, the name of the instructor, and the instructor's employer.

6.3 TRAINING MATERIALS SUSTAINMENT

The contractor shall provide any revisions to the training course materials to each student in hard and soft copy. This includes all training material and technical literature required to teach the course (train the trainer concept) which includes but is not limited to instructor lesson plans, student guides, instructional visual aids, and any tests or practical applications with answer guides.

6.4 TRAINING PLAN

The contractor shall prepare and provide a Training Plan to include strategy, methods, and resources to deliver training. This includes training concepts that incorporate course description, learning objectives, conditions, and standards. The Training Plan shall identify delivery methods, media type, anticipated training time, test, and evaluation. The Training Plan shall identify location, frequency, throughput, mitigated safety risks, classroom facilities, and training schedules.

6.5 TRAINING MATERIALS

All training material shall be prepared per MIL-PRF-29612 and the Systems Approach to Training Manual, NAVMC 1553.1. Materials that fall under parameters of Commercial Off-the-Shelf (COTS) or non-developmental items do not necessarily have to be drafted under the specific templates but have to contain the elements within SAT guidelines.

The MPT Lead shall have fifteen (15) calendar days to review the any training materials submitted by the Contractor in the Training Plan, to ensure compliance with MIL-PRF-29612 and SAT Manual (NAVMC 1553.1) guidance and to provide comments and recommendations to the Logistics Lifecycle (LCL) lead.

7 MANDATORY COMPLIANCE DOCUMENTS AND STANDARDS

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

1. Marine Corps Systems Command, Statement of Need (SON) for the Marine Corps Base Telecommunications Infrastructure (BTI), MCB Quantico: Marine Corps Systems Command, 2010.
2. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need, MCB Quantico: Marine Corps Systems Command, 2012.
3. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need (SON), MCB Quantico: Marine Corps Systems Command, 2013.
4. Marine Corps Systems Command/PMM-110, BTI Program Protection Plan, Quantico: Marine Corps Systems Command/PMM-110, 2013.
5. Marine Corps Systems Command/PMM-110, BTI Test Evaluation Strategy, Quantico: Marine Corps Systems Command/PMM-110, 2013.
6. USMC UC Implementation Plan v 1.0, Oct 9 2013 Unified Capabilities Implementation Plan.
7. MCSC/P IS&I, PMM-110/037-15, Acquisition Decision Memorandum for the Base Telecommunications Infrastructure Program, Quantico: Marine Corps Systems Command, 2015.
8. Department of the Navy (DoN), Next Generation Enterprise Network Capabilities Production Document, v. 1.5.6, 2012.
9. Marine Corps Wide Area Network (WAN) Transport Implementation Plan. Version 1.01 dtd 9 September 2017.
10. Department of the Navy, Unified Capabilities Implementation Plan, Washington, DC Department of the Navy, 2015.
11. Navy UC Implementation Plan Nov 22, 2013 Unified Capabilities Implementation Plan

12. DoN Software Process Improvement Initiative (SPII) Guidebook Department of the Navy Policy for Acquisition of Naval Software Intensive Systems, September 16, 2008.
13. Department of Defense, Defense Acquisition Guidebook (DAG).
14. Defense Information Systems Agency (DISA) Net-Centric Enterprise Services (NCES).
15. Department of Defense/DISA, "JITC UC Document Depot / EMS) Letter of Clarification Template Requirements," 4 May 2016.
16. US DoD System Safety Program, 2009.
17. DoD Information Enterprise Architecture Information Enterprise Architecture, v1.1, May 2009.
18. DoD, Manual For The Operation Of The Joint Capabilities Integration And Development System (JCIDS), 2012.
19. DoD Internet Protocol Version 6 (IPv6) Standard Profiles For IPV6 Capable Products Version 6.0 July 2011.
20. DoD Federal Acquisition Regulation Supplement (DFARS) 252.211-7003 Item Identification and Valuation.
21. DoD/CIO UCF January 2013 Unified Capabilities Framework.
22. DoD Procurement Toolbox, 2016.
23. Department of Defense Architecture Framework (DoDAF) v2.0.
24. Department of Defense/Defense Information Systems Agency Unified Capabilities Framework, Washington: Department of Defense/Defense Information Systems Agency, 2013.
25. DoD, Department of Defense Unified Capabilities (UC) Extensible Messaging and Presence Protocol (XMPP) Errata-1.
26. DoD, Department of Defense Assured Services (AS) Session Initiation Protocol (SIP).
27. DoD Guidance on Protecting Personally Identifiable Information (PII).
28. Federal Information Security Management Act (FISMA) of 2002 Standards and guidance for minimum-security requirements for Information Systems.
29. Modular Open Systems Approach (MOSA), Version 2.0.
30. Security Configuration Guides.
31. Strategic Command Directive 527-1 DoD Information Operations Conditions (INFOCON) System Procedures.
32. VoIP STIG Version 3, Release 15, VoIP Security Technical Implementation Guide.
33. DISA Policy and Guidance.
34. DISA, DoD Telecommunications and Defense Switched Network Security Technical Implementation Guide.
35. Network Infrastructure STIG Version 8, Release 8.
36. The Certificate Issuing and Management Components family of Protection Profiles (PPs).
37. Information Technology Infrastructure Library (ITIL) v3 Foundation Procedures, tasks and checklists used by an organization for establishing a minimum level of competency.
38. USAISEC OSPDPR Outside Plant Design and Performance Requirements (OSPDPR).

39. USAISEC I3A-2010 Technical Criteria for the Installation Information Infrastructure Architecture (I3A).
40. International Building Code (IBC 2015).

7.1 FEDERAL PUBLICATIONS

Publication	Short Title
NIST SP 800-58	Voice Over IP (VoIP) Security
CNSSI 5000	Guidelines for VoIP Computer Telephony
OSHA 29 CFR 1910	Occupational Safety and Health Standards
OSHA 29 CFR 1910.269	Electric Power Generation, Transmission, and Distribution
OSHA, 29 CFR 1926.50	Medical services and first aid
OSHA 29 CFR 1926.403	Safety and Health Regulations for Construction
OSHA 29 CFR 1298	Occupational Safety and Health Standards, Washington: Occupational Safety and Health Administration, 2007

7.2 MILITARY UNIQUE STANDARDS

Publication	Short Title
MIL-STD 130N w/CH 1	Identification Marking of U.S. Military Property
MIL-STD-461G	Requirements for the Control of Electromagnetic Interference
MIL-STD-464C	Electromagnetic Environmental Effects Requirements for Systems
MIL-STD-810G w/CH 1	Environmental Engineering Considerations and Laboratory Tests
MIL-STD-882D	Standard Practice for System Safety
MIL-STD-129R	Military Marking for Shipment and Storage
MIL-STD-188 124B	Grounding Bonding and Shielding
DI-MGMT-81650	Integrated Master Schedule (IMS)
MIL-HDBK-419A	Grounding and Bonding
MIL-HDBK-1013/1A	Design Guidelines for Physical Security of Facilities

7.3 DoD OPNAV AND MARCORSYSCOM STANDARDS AND REFERENCES

Publication	Short Title
ASTM D3951 - 15	Standard Practice for Commercial Packaging
CJCSI 6510.01F	Information Assurance (IA) and Support to Computer Network Defense (CND)
CJCSI 6211.02D	Defense Information Systems Network (DISN) Responsibilities
CJCSI 6212.01E	Interoperability and Supportability of Information Technology and National Security Systems
CJCSI 6215.01C	Policy for Department of Defense (DoD) Voice Networks with Real Time Services (RTS)
CJCSI 6130.01F	Master Positioning, Navigation, and Timing Plan
DoD 5000.2	Operation of the Defense Acquisition System
DOD 8420.01	Commercial Wireless Local-Area Network (WLAN) Devices, Systems, And Technologies, November 3, 2017
DoDI 8100.04	Unified Capabilities
DoDI 8500.01	Cybersecurity
DoDI 8510.01	Risk Management Framework for Information Technology
DoDI 5000.64	Accountability and Management of DoD Equipment and other Accountable Property
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 3020.26P	Department of Defense Headquarters Continuity Plan (U)
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 5400.16	DoD Privacy Impact Assessment (PIA) Guidance
DoDI 4140.67	DoD Counterfeit Prevention Policy
DoDI 4161.02	Accountability and Management of Government Contract Property
DODI 8010.01	Department Of Defense Information Network (DODIN) Transport
DoDI 8320.04	Item Unique Identification Standards for Tangible Personal Property
DoDD 8500.01E	Information Assurance, Mission Assurance Category
DoDD 8500.2	Information Assurance Implementation
DoDD 5000.01	The Defense Acquisition System
UCR 2013	Unified Capabilities Requirements 2013 (UCR 2013) w/CH 2
UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property w/CH 2
UFC 3-301-01	Structural Engineering w/CH 3
UFC 3-310-04	Seismic Design of Buildings
UFC 3-501-01	Electrical Engineering

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Publication	Short Title
UFC 3-520-05	Stationary Battery Areas w/CH 1
UFC 3-520-01	Interior Electrical Systems
UFC 3-575-01	Lightning and Static Electricity Protection Systems
UFC 3-580-01	Telecommunications Interior Infrastructure Planning and Design
UFC 3-580-10	Navy and Marine Corps Intranet (NMCI) Standard Construction Practices
UFC 3-600-01	Fire Protection Engineering for Facilities Change 1
UFC 4-021-02	Electronic Security Systems
UFC 2000 Article 64	Stationary Lead-Acid Battery Systems
UID Guide Version 2.5	Assuring Valuation, Accountability and Control of Government Property
USAISEC – I3A, I3MP	Fort Detrick Engineering Directorate, Technical Guide for I3A and I3MP Grounding and Bonding
USAISEC – I3MP	Fort Detrick Engineering Directorate, Technical Guide for Installation Information Infrastructure Modernization Program (I3MP)
USAISEC – I3A	Technical Criteria for the Installation Information Infrastructure Architecture (I3A)
USAISEC - SIPRNet	Secret Internet Protocol Router Network (SIPRNet) Technical Implementation Criteria
USAISEC, TR No. AMSEL-IE-IS 08014	Enterprise Systems Engineering Directorate, I3MP Guide for Facilities Requirements of Core Communications Nodes
USAISEC, TR No. AMSEL-IE-TI 09-001-7A	United States Army Information Systems Engineering Command (USAISEC) Outside Plant Design and Performance Requirements (OSPDPR)
MARADMIN 639/08	USMC CS Vulnerability Management (CSVM) Program
MCBUL 5239	Marine Corps Certification And Accreditation Program
MCO 5239.1	Marine Corps Information Assurance Program (MCIAP)
MCBUL 5234.15B	Marine Corps Enterprise Network Microsoft Computer Operating Systems Directive For Windows 10. Server 2012 and Exchange 2013
NAVMC 5100.1	Marine Corps Operational Safety and Health Program
SECNAVINST 5000.2	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

7.4 INDUSTRY STANDARDS AND REFERNCES

Publication	Short Title
ANSI/EIA 310-D	Cabinets, Racks, Panels, and Associated Equipment
ANSI/TIA 606-C	Administration Standard for Commercial Telecommunications Infrastructure
ANSI/TIA 568.0-D	Generic Telecommunications Cabling for Customer Premises
ANSI/TIA 606-C	Administration Standard for Telecommunications Infrastructure
ANSI/TIA 569-D	Telecommunications Pathways and Spaces
ANSI/TIA 942-B	Data Center Cabling Standard
ANSI/TIA-568.3-D	Optical Fiber Cabling Components
ANSI/TIA- 455-133-A	Measurement of Fiber or Cable Length Using an OTDR
ANSI/TIA/EIA-455-8-2000	Measurement Methods and Test Procedures – Attenuation OTDR
ANSI J-STD -607-C w/CH 1	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
ANSI Z535.4	Product Safety Signs and Labels
ANSI/BICSI 002	Data Center Design and Implementation Best Practices
ANSI/HFES 100	Human Factors Engineering of Computer Workstations
ANSI/ISEA Z358.1	American National Standard for Emergency Eyewash and Shower Equipment
ANSI/IEEE 142	Recommended Practices for Grounding of Industrial and Commercial Power Systems
ANSI/IEEE C2	National Electrical Safety Code (NEC)
IEEE 802.3	Standard for Ethernet
IEEE 802.3at	IEEE Standard for Information technology - Local and metropolitan area networks - Specific requirements - Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 3: Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements
IEEE 802.3af	IEEE Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications - Data Terminal Equipment (DTE) Power Via Media Dependent Interface (MDI)
IEEE 802.1Q	Virtual Local Area Networks (VLANs)
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.3ab	1000BASE-T Gigabit Ethernet

Publication	Short Title
IEEE 802.3z	Gigabit Ethernet Over Optical Fiber and Shielded Twisted Pair (STP)
IEEE 802.3ae	10 Gigabit Ethernet (10 GbE)
IEEE 802.1w	Rapid Reconfiguration of Spanning Tree
IEEE 802.1s	Multiple Spanning Trees
IEEE 802.3ba	40/100 Gigabit Ethernet
IEEE RFC7348	Virtual eXtensible Local Area Network (VXLAN)
IEEE 802.11	IEEE Standard for Information Technology - Telecommunications and information exchange between systems Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
IEEE 1100	IEEE Recommended Practice for Powering and Grounding Electronic Equipment. (IEEE Emerald Book)
IEEE 1106	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1187	IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Storage Batteries for Stationary Applications
IEEE 1188	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1189	IEEE Guide for Selection of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
IEEE 1220	IEEE Application and Management of the Systems Engineering Process
IEEE 1471	Recommended Practice for Architecture Description of Software Intensive Systems
IEEE 15288.2	Standard for Technical Reviews and Audits on Defense Programs
MIL-STD 31000 Rev. C	Technical Data Packages
ASME Y14.100	Engineering Drawing Practices
ASME Y14.24	Types and Applications of Engineering Drawings
ASME Y14.35M	Revision of Engineering Drawings and Associated Documents
ASME Y14.34M	Associated Lists
IETF RFC 2819	Remote Network Monitoring Management Information Base
IETF RFC 3261	SIP: Session Initiation Protocol

Publication	Short Title
IETF RFC 3410	Introduction and Applicability Statements for Internet-Standard Management Framework
IETF RFC 3418	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
IETF RFC 4346	The Transport Layer Security (TLS) Protocol, Version 1.1
IETF RFC 5709	OSPFv2 HMAC-SHA Cryptographic Authentication
IETF RFC 5798	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6
IETF RFC 5905 v4	Network Time Protocol Version 4: Protocol and Algorithms Specification
NEMA 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
NFPA 1	Fire Code
NFPA 70	National Electrical Code
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 72	National Fire Alarm and Signaling Code
NFPA 75	Standard for the Protection of Information Technology Equipment
NFPA 76	Stationary Lead-Acid Batteries
NFPA 101	Life Safety Code
NFPA 110	Standard for Emergency and Standby Power Systems
NFPA 780	Standard for the Installation of Lightning Protection Systems
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems
GR-513-CORE	Power Requirements in Telecommunications Plants
GR-1275-CORE	Central Office/Network Environment Equipment Installation/Removal Generic Requirements
GR 1502-CORE	Central Office/Network Environment Detail Engineering Generic Requirements
GR-3160-CORE-001	Generic Requirements for Telecommunications Data Center Equipment and Space, Jul 2013
UL 96A	Standard for Installation Requirements for Lightning Protection Systems
UL 467	Grounding and Bonding Equipment
UL 497	Standard for Protectors for Paired-Conductor Communications Circuits
UL 497A	Standard for Secondary Protectors for Communications Circuits
UL 497B	Standard for Protectors for Data Communications and Fire-Alarm Circuits
UL 1449	Standard for Surge Protective Devices

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Publication	Short Title
EIA-625	Requirements for Handling Electrostatic Discharge-Sensitive (ESDS) Device
IFC	International Fire Code
EPA 40 CFR	Protection of Environment: Hazardous Material Inventory and Reporting, Spill Control, Spill Reporting, and Disposal
ISO/IEC/IEEE 8802-15-4	Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 15-4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for low-rate Wireless Personal Area Networks (WPANs)
ITU-T G.655	Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable
ITU-TG.709/Y1331	Interfaces for Optical Transport Network.
ITU-TG.798	Characteristics of Optical Transport Network Hierarchy
ITU-TG 872	Architecture of Optical Transport Networks
ITU-TG 873.1	Optical Transport Network Linear Protection.
ITU-G.694.1	Spectral grids for WDM applications: DWDM Frequency Grid
ITU-G.692.2	Amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces
LPI 175	Standard of Practice for the Design - Installation - Inspection of Lightning Protection Systems

8 APPLICABLE PUBLICATIONS (CURRENT EDITIONS)

The following documents apply to this Performance Specification. In the event of conflict between the applicable documents and this PWS, the PWS shall take precedence. All documents cited as compliance documents shall be considered as guidance only. Nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained. Appendix A - *MCB Quantico – Site Specific Equipment* provides a listing of the MCB Quantico existing nodes and equipment per site.

Appendix	Document/Reference	Purpose
A	Site Specific Equipment	Provides a listing of the MCB Quantico existing nodes and equipment per site.
B	NCI Systems Engineering Plan (SEP)	Describes the Government's systems engineering process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
C	NCI Test and Evaluation Management Plan	Describes the Government's test and evaluation process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
D	PM N&I Configuration Management Plan	Describes the Government's configuration management process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
E	NCI Risk Management Plan	Describes the Government's risk management process. The Contractor is expected to have a similar effort that integrates with the Government's risk reporting process.
F	BTI Life-Cycle Sustainment Plan (LCSP)	Describes the Government's sustainment process.
G	BTI Item Unique Identification (IUID) Plan	Describes the Government's equipment accountability requirements and process.
H	PM N&I Programmatic Environmental, Safety, and Occupational Health Evaluation (PESHE)	Describes the Government's Environmental, Safety, and Occupational Health (ESOH) risk management approach (strategy, processes, and procedures) to include the integration of ESOH considerations in the acquisition and systems engineering processes.
I	Quality Assurance Surveillance Plan (QASP)	Describes the method by which the Government will monitor the Contractor's overall performance. The Contractor is expected to satisfy all the requirements of the contract by leveraging the surveillance procedures and methodologies established the QASP.
J	NCI BAN Reference Architecture	
K	NCI UC Reference Architecture	
L	NCI Network Power Reference Architecture	

8.1 GENERAL

The contractor shall develop an engineering design to deliver a turnkey solution that conforms to all the performance requirements specifications in this section of the PWS. The design and operation of the solution is governed by the NGEN Capability Production Document (CPD) and the BTI Statement of Need (SON) and associated Letters of Clarification (LOC). These governing documents include Key Performance Parameters (KPP) which must be maintained throughout the modernization of the communication infrastructure to be performed at MCB Quantico, and are the foundation of the systems design characteristics. Those KPPs are identified in Section 8.1.1. Additional system and subsystem specifications are identified sections 8.2 and 8.3. Specifications governing Site Preparation and Network Power are provided in section 8.4.

8.1.1 SYSTEM-WIDE KEY PERFORMANCE PARAMETERS

Performance Objective	Performance Threshold	Method of Surveillance
KPP-1	Components shall be JITC compliant.	Inspection
KPP-2	The system(s) shall have an operational availability of 99.999%.	Analysis
KPP-3	The system shall have a growth capacity of 25% to support the increase in users without an equipment replacement.	Analysis
KPP-4	Installations with geographically separate Points of Presence (PoP) shall have redundant UC and BAN equipment and services at each CN connected in a split core configuration mirroring the transport boundary.	Analysis

8.2 UNIFIED COMMUNICATIONS SYSTEM

The Regional UC solution shall provide business voice capability to those locations where the solution will be deployed. MCB Quantico shall include all NIPRNet users on MCB Quantico. The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911) services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

8.2.1 VOICE EQUIPMENT INSTALLATION AND CONFIGURATION

Delivery of voice and data services to the end-user shall be provided over a single physical infrastructure connection (port) at the end-user workstation. Physical connection of the end-user devices in series via the phone set. Logical connection for voice and data services shall be accomplished via Virtual Local Area Network (VLANs) or Software-Defined Network (SDN) virtual network.

Each new line module and gateway shall be fully wired to the MDF and equipped with all required common control and power cards, and connected to the assigned Local Session Controllers (LSCs). The contractor shall EFIST and make operational any new cards required to support a mixture of

analog. The contractor shall provide one analog gateway per DN and 8,000 knowledge workers and associated hardware. The contractor shall furnish and install equipment blocks, vertical frames, cables, Digital Cross-Connect (DSX) panels, etc., to terminate the equipped and wired capacity onto the horizontal side of the MDF or cross-connect. The contractor shall coordinate placement of equipment blocks with the TSO. The contractor shall test all endpoints after installation is complete.

8.2.2 EQUIPPED SUBSCRIBER PORT CAPACITY

The equipped subscriber port capacity shall be fully licensed, assigned, and activated at the time of cutover. Equipped line cards shall be distributed evenly across all media gateway shelves and line modules to prevent an outage of ports of the same type in the same workspace in the event of hardware failure. The contractor shall build temporary subscriber test lines of all equipped types on each line card module or drawer for testing equipment dial tone during System Acceptance Test (SAT).

8.2.3 WIRED SUBSCRIBER PORT CAPACITY

The wired subscriber port capacity shall be provided as pre-wired hardware (i.e., shelves, drawers, common control circuit packs, etc.) and have the ability to be activated only through the use of basic switch translations and the installation of subscriber port modules and circuit packs.

8.2.4 REPLACEMENT PHONE SETS

The contractor shall provide replacement phone sets at the time of systems cutover. The replacements are provided to support the operations and maintenance of the voice network after Government acceptance. The quantity of replacement phone sets to be delivered shall be 8,000.

8.2.5 KEY SYSTEMS ATTRIBUTES

8.2.5.1 REGIONAL UC SYSTEM

Performance Objective	Performance	Method of Surveillance
UC-1	The Regional UC system shall provide IP and analog voice services to each end-user on all Installations within the region.	Inspection
UC-2	The Regional UC shall provide the ability to call between regional end-users without using the softswitch backbone.	Analysis
UC-3	Voice services include business voice, voice conferencing, voice mail, and unified messaging.	Inspection
UC-4	The UC system shall have a Telecommunications Management System (TMS) that supports all the Installations within the region.	Inspection
UC-5	Support the Differentiated Service Code Points (DSCP) markings to implement QoS/CoS.	Inspection
UC-6	Provide native audio Mean Opinion Score (MOS) of 3.8, at a minimum, IAW the Telecommunications Industry Association (TIA) Telecommunications – IP Telephony Equipment – Voice Quality Recommendations for IP Telephony (TSB-116-A).	Inspection

8.2.6 MAJOR FUNCTIONAL REQUIREMENT

8.2.6.1 LOCAL SESSION CONTROLLER

Performance Objective	Performance	Method of Surveillance
LSC-1	A UC system shall consist of LSCs and Media Gateways as required at each B/P/C/S.	Inspection
LSC-2	LSCs installed at each Installation as defined above shall conform to the requirements for Assured Services Core Session Controller as defined in the UCR 2013 w/Change 2.	Inspection
LSC-3	Each LSC shall interface with the other LSCs in its region in a coordinated cluster to provide full failover capability across Installations.	Inspection
LSC-4	Each LSC shall provide local survivability in the event DISN connectivity is lost.	Inspection
LSC-5	Each LSC shall support local session management when in a disconnected state.	Inspection
LSC-6	Each LSC shall support on Base E911/NG911 routing to the PSAP or ERC, via existing Installation infrastructure.	Inspection
LSC-7	The UC systems shall provide both DSN and PSTN Directory Number assignments for each subscriber.	Inspection

Performance Objective	Performance	Method of Surveillance
LSC-8	Automatic Call Distribution (ACD) shall be provided at the region.	Inspection
LSC-9	Supported Users can utilize softphones through secure VPN from any remote location.	Inspection

8.2.6.2 SESSION BORDER CONTROLLER

Performance Objective	Performance	Method of Surveillance
SBC-1	SBCs shall be co-located and configured in a redundancy group.	Inspection

8.2.6.3 TELECOMMUNICATIONS MANAGEMENT SYSTEM

Performance Objective	Performance	Method of Surveillance
TMS-1	The TMS will be located at MCB Quantico.	Inspection
TMS-2	The TMS shall have a direct interface to Remedy for asset tracking.	Inspection

8.2.6.4 CUSTOMER SERVICE SUPPORT APPLICATION

Performance Objective	Performance	Method of Surveillance
CSSA-1	Customer Service Support Application (CSSA) shall be provided at the region.	Inspection
CSSA-2	CSSA shall provide call routing via Interactive Voice Recognitions (IVR) for management, administration features.	Inspection
CSSA-3	CSSA shall support 400 agents.	Inspection
CSSA-4	CSSA shall have a built in “heat map” to allow scheduling during peak usage vice time of day.	Inspection

8.3 BASE AREA NETWORK

The BAN at MCB Quantico shall be developed in accordance with the reference architecture shown in Figure 2 or Figure 3 and interface with the MCEN Core Switches. The BAN consists of DNs and Edge Access Devices logically connected as depicted in Figure 2 or Figure 3. A DWDM and PON system shall be EFIST'd. They shall provide connectivity between the core nodes and the area distribution nodes. Connectivity to the end-user will be accomplished over traditional Ethernet switches and Edge Access Devices or Optical Network Terminals (ONT) located in EUBs. The BAN shall satisfy all the KSA and the Major Functional Requirements identified the following sections.

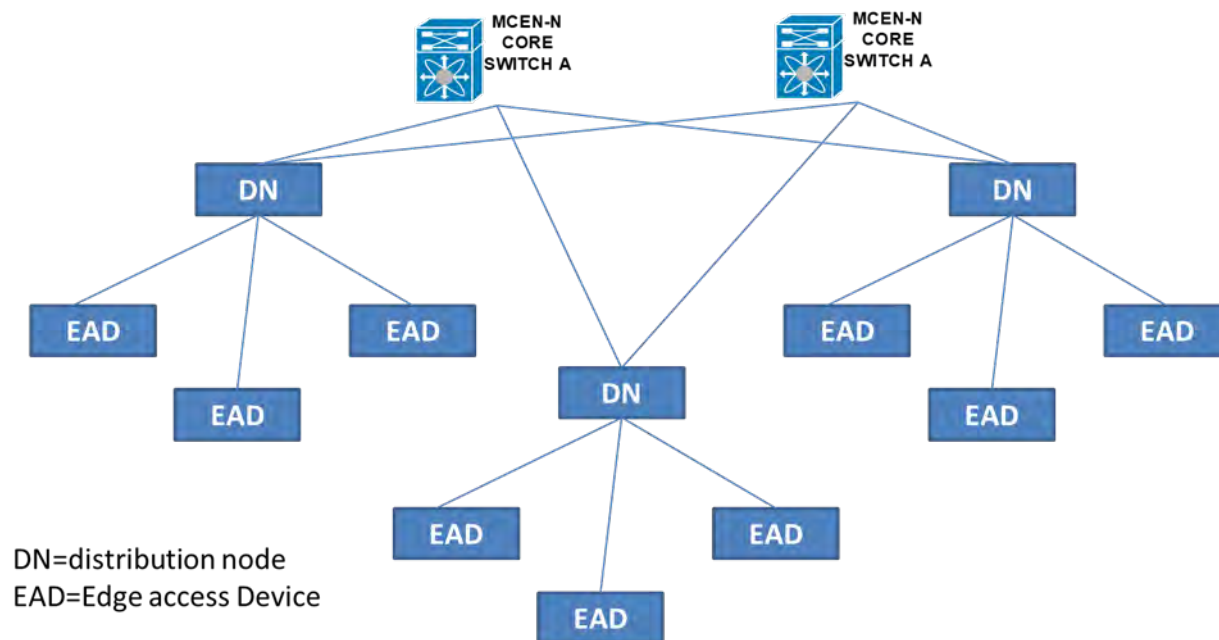


Figure 2 – BAN Reference Architecture

8.3.1 KEY SYSTEMS ATTRITBUTES

8.3.1.1 Base Area Network

Performance Objective	Performance	Method of Surveillance
BAN-1	Voice, video and data shall be converged on the single installation BAN.	Inspection
BAN-2	The BAN shall support multi-tenancy on the single installation infrastructure.	Inspection
BAN-3	The BAN shall be operated from a single management system executed from a centralized Network Operation Center (NOC) on MCB Quantico.	Inspection
BAN-4	The BAN shall operate within the constraints of the Installation Gateway.	Inspection

8.3.2 MAJOR FUNCTIONAL REQUIREMENT

8.3.2.1 WAVELENGTH DIVISION MULTIPLEXING

The Optical Transport System (OTS) for the Backbone Transport shall be comprised primarily of DWDM technology to include all equipment and components to make a complete and functional Wave Selectable Switch (WSS) Reconfigurable Optical Add/Drop Multiplexers (ROADMs) nodal network elements. The OTS may include Course Wavelength Division Multiplexing (CWDM) technology in those instances in which a point-to-point connection is required between nodes with limited circuit requirements such as a linear spur to a node in a remote location or Installations that have two CNs, only. The contractor shall leverage existing optical fiber to provide a full or partial mesh topology with no single point of failure.

Performance Objective	Performance	Method of Surveillance
WDM-1	The WDM shall provide sufficient network degrees at each node to support the topology plus one spare degree.	Inspection
WDM-2	The WDM shall provide an integrated wave selectable switch Reconfigurable Optical Add/drop Multiplexer (ROADM) to support all the nodes.	Demonstration
WDM-3	Each degree shall transmit a minimum of 40G wavelengths on the initial configuration.	Test
WDM-4	The WDM network shall be upgradable to 200G and 400G wavelengths without removing the existing hardware suite (circuit card replacement is acceptable) (Objective).	Inspection
WDM-5	Path protection shall be implemented to provide high availability to each node.	Inspection

8.3.2.2 PASSIVE OPTICAL NETWORK (PON)

A PON network is a converged transport schema that is designed to carry multiple services such as VoIP, Data, IP Video, and Radio Frequency (RF) Video. The common PON operational framework technologies in use are Ethernet PON (EPON), Broadband PON (BPON) and Gigabit PON (GPON). GPON conforms to the ITU T G984 series (G.984.1 through G.984.7) and provides bit rates above 1 Gbps. EPON conforms to the IEEE 802.3ah and 802.3av specifications with options for 1/1 Gbps 10/1 Gbps and 10/10 Gbps.

At a high level, a PON consists of a head-end device called an Optical Line Terminal (OLT). The OLT may be deployed at the Distribution (e.g., Main Communication Node or Area Distribution Node), and Access (e.g., End User Building) Layers. End user endpoints are equipped with ONTs that provide Ethernet, 2-wire analog Plain Old Telephone Service (POTS), and even RF video. As many as 64 (and in some cases more) ONTs connect to a PON port via a single, single mode fiber whose optical signals are combined at a passive splitter. A PON utilizes Wavelength Division Multiplexing (WDM), using

one wavelength for downstream traffic and another for upstream traffic across one single, single-mode fiber optic cable. The PON specifications provide downstream traffic to be transmitted over a single fiber on the 1490 nanometer (nm) wavelength and upstream traffic to be transmitted at 1310 nm. A third 1550 nm band is allocated for overlay services, in this case, RF (analog) video.

In PON, power to the ONT is not provided via the fiber network. If power would be needed, it is provided via copper (which could be included with fiber in the network cable). Power to the ONT can be deployed in two ways, local and remote. Remote power can be provided as centralized or distributed DC plants. Centralized DC plant requires NEC Class 1 compliant cabling while Distributed DC plant requires NEC Class 2 compliant cabling.

The distributed remote power is provided by the power unit installed at the communication closet. This enables the PDU to provide power to the desktop for the ONTs using existing copper cabling that had previously been used to provide Ethernet signal to the desktop. Since this unit is modular, it can be expanded as the needs of the zone grows. This PDU must be able to provide the proper wattage to power not only for the ONT, but also the Power over Ethernet (PoE) powered devices connected to the ONT. If existing catX cables are not available, then independent x/2 cables or composite fiber and copper pair cables can be used.

Figure 3 displays PON Connectivity in the DoD operational framework, and shows a typical installation utilizing the OLT in the Distribution (ADN) and Access (EUB) Layers of the DoD UC model.

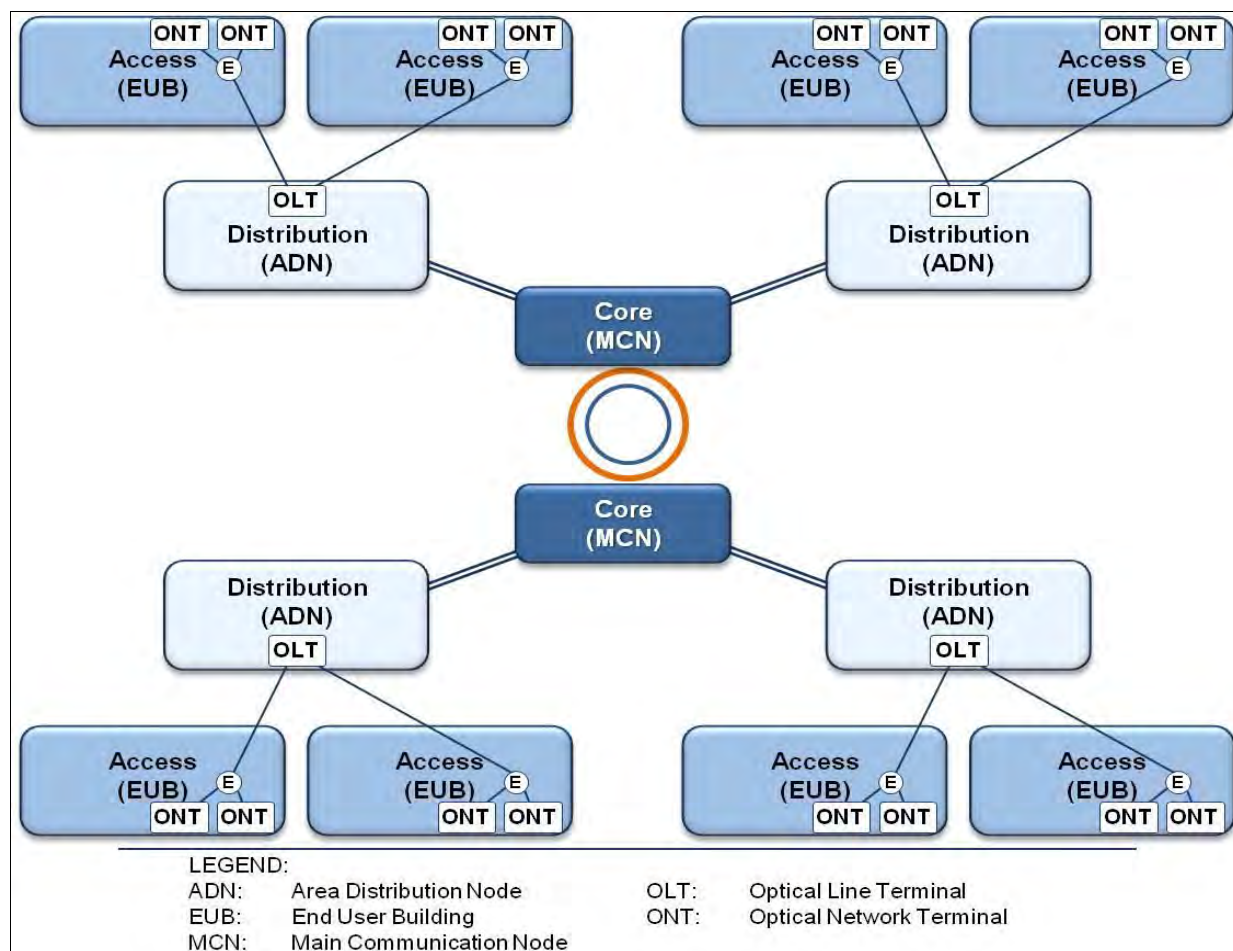


Figure 3-PON Reference Architecture

Performance Objective	Standard	Performance	Method of Surveillance
REQ001	N/A	To ensure Quality of Service (QoS), all NCI materiel solutions must provide Differentiated Services mechanisms.	N/A
	UCR EDG-000160	The system shall provide Differentiated Services mechanisms to ensure QoS	Analysis
	Derived	The system shall provide different priority levels for users.	Analysis
	Derived	The system shall provide different priority levels for data flows.	Analysis
	UCR EDG-000090	The Core and Distribution products shall be capable of accepting any packet tagged with a DSCP value (0-63) on an ingress port and reassign that packet to any new DSCP value (0-63)	Analysis

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	Passive Optical Network shall be capable of supporting the prioritization of aggregate service classes with queuing. Queuing may be supported as Layer 2 or Layer 3 class of service (CoS)	Analysis
REQ002	N/A	Support network "slices" in campus/base environments, which enable IT managers to segment the network for specific needs.	N/A
	Derived	The solution shall support multi-tenant network services	Analysis
	Derived	The solution shall support the capability of varying agencies communicating with one another, without mixing traffic flows	Analysis
REQ003	N/A	Support Dynamic Bandwidth Allocation and Throttling, which enable IT managers to better manage the SLA.	N/A
	Derived	The solution shall support Dynamic Bandwidth Allocation and Throttling	Demonstration
REQ004	N/A	Provide support of standard protocols to build a PON network infrastructure – NNI Interface	N/A
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR EDG- 000410	The solution shall support 1000 Mbps IAW IEEE 802.3z for the NNI interface	Analysis
	UCR EDG- 000600	The solution shall support Rapid Configuration of Spanning Tree IAW IEEE 802.1w	Analysis
	Derived	The solution shall support Link Aggregation IAW IEEE 802.1AX (formerly 802.3ad)	Analysis
REQ005	N/A	Provide support of standard protocols to build a PON network infrastructure – OLT to PON Interface	N/A
	UCR EDG- 000610	The PON system shall provide one of the following PON (OLT-ONT) technologies: a. GPON IAW G.984 series (G.984.1 through G.984.7). b. EPON IAW 802.3ah. (1 Gbps). c. GEAPON IAW 802.3av (10 Gbps)	Analysis
REQ006	N/A	Provide support of standard protocols to build a PON network infrastructure – UNI Interface	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR SEC-001760	The solution shall support Port-Base Access Control IAW 802.1x	Analysis
	UCR SEC-000080	The solution shall provide Link Layer Discover – Media Endpoint Discovery IAW ANSI TIA 1057	Analysis
	UCR SEC-000080	The solution shall support Auto-negotiation IAW IEEE 802.3	Analysis
	Derived	The solution shall support Power over Ethernet (PoE) IAW either 802.3af-2003 or 802.3at-2009	Demonstration
REQ007	N/A	Provide support of standard management protocols	N/A
	Derived	The solution shall support SNMP V3	Demonstration
	UCR EDG-000820	The solution shall support Secure Shell Version 2 (SSHv2)	Demonstration
	UCR EDG-000840	The solution shall support HTTPS.	Demonstration
REQ008	N/A	Provide support for Voice Services	N/A
	UCR EDG-000720	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG-000730	Jitter - The PON shall have the capability to transport prioritized voice IP packets across the PON SUT	Test and Analysis
	UCR EDG-000740	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ009	N/A	Provide support for Data Services	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 000780	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG- 000790	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ010	N/A	Support network "scaling" in campus/base environments, which enable IT managers to upgrade network infrastructure without service interruption.	N/A
	Derived	The solution shall support add change move of the network device without the service interruption.	Demonstration
	Derived	The solution shall support unique node upgrade in distribute systems without influence on the whole system.	Analysis
REQ011	N/A	Provide redundancy in PON network.	N/A
	UCR EDG- 000990	PON shall have no single point of failure that can cause an outage of more than 96 IP telephone subscribers.	Analysis
	UCR EDG- 001020	PON shall support a Layer 2 Dynamic Rerouting protocol. Failover shall occur in no more than 1 second.	Demonstration
REQ012	N/A	Provide centralized management and monitoring of the PON	N/A
	Derived	The solution shall provide centralized management to leverage automated tools to provision, configure and manage PON network	Analysis
	Derived	The solution shall abstract all of the complexities and dependencies and provide the user with a simple set of GUI tools to easily manage and operate the entire network.	Demonstration
	Derived	The solution shall provide database backup and restore	Demonstration

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 001110	The PON product shall support Fault, Configuration, Accounting, Performance, and Security (FCAPS) Network Management functions	Demonstration
	Derived	The solution shall provide Secured process for downloading and establishing software at the Network Element	Analysis

8.3.2.3 CORE AND DISTRIBUTION NODES

Performance Objective	Performance	Method of Surveillance
ADN-1	Node elements shall have a minimum of 10 Gbps uplinks to the MCEN Core Switch.	Inspection
ADN-2	There shall be two BAN core routers located in Bldg. 1999 and Bldg. 24204.	Inspection
ADN-3	The BAN core routers shall be configured in active-active configuration.	Inspection
ADN-4	The BAN core routers shall perform all BAN routing.	Inspection
ADN-5	The BAN core routers shall support MPLS.	Inspection

8.3.2.4 EDGE ACCESS DEVICE

Performance Objective	Performance	Method of Surveillance
EAD-1	Edge Access Devices shall have a minimum of 10 Gbps uplink to the DN element.	Inspection
EAD-2	Edge Access Devices shall have uplink diversity and redundancy when allowed by the outside plant.	Inspection
EAD-3	Edge Access Devices shall have a minimum of 10 Mbps end-user interfaces.	Inspection
EAD-4	Edge Access Devices shall have a minimum 10 Gbps interface to the Wireless Access Point (WAP).	Inspection
EAD-5	Edge Access Devices shall support POE+.	Inspection

8.4 SITE PREPARATION

Site preparation will be provided on an as needed basis at CNs and DN nodes only.

8.4.1 KEY SYSTEMS ATTRIBUTES

Performance Objective	Performance	Method of Surveillance
SP-1	The Network Power System shall provide sufficient uninterruptable AC and DC power to support all IT systems and components located in the facility.	Analysis
SP-2	The Network Power System shall provide sufficient transitional power in the event of loss of shore/commercial power until emergency backup comes on-line.	Demonstration
SP-3	Auxiliary infrastructure shall be installed IAW with all applicable Unified Facilities Criteria.	Inspection

8.4.2 MAJOR FUNCTIONAL REQUIREMENT**8.4.2.1 NETWORK POWER SYSTEM**

The contractor shall validate the power requirements at the VSS. If needed, the Government may request that the Contractor provide Network Power Systems at the Core and Distribution Nodes to support all the systems and subsystems delivered as a part of the proposed solution. This Network power systems shall include an AC connection to commercial or shore power, N+1 3-Phase AC UPS, Automatic Transfer Switch (ATS), self-testing network Emergency Power Off (EPO) switch, battery disconnect switch, and any necessary sub-panels, cabinet or rack power supply buss trackway and Power Distribution Units (PDUs).

Network Power Systems modernization (upgrade/replacement) will be provided on an as needed basis at Installations Core and Distribution Nodes only.

8.4.2.2 NETWORK PANELBOARDS AND SUBPANELS

Performance Objective	Performance	Method of Surveillance
NPS-1	All Network power panels and subpanels shall be 120/208 VAC, 3-phase, Y-connected, with separate neutral and ground conductors.	Inspection
NPS-2	Bonding of neutral and ground conductors shall be done in accordance with NFPA 70 and the NEC instruction regarding bonding of neutral to ground in a multi-panel system.	Inspection
NPS-3	AC distribution system wiring shall include a separate copper conductor marked as per NFPA 70 and the NEC instruction installed throughout all branch and feeder circuits.	Inspection
NPS-4	All network AC power panels feeding branch circuits shall be sized for not less than 25 percent growth in circuit breaker quantity.	Analysis

Performance Objective	Performance	Method of Surveillance
NPS-5	Circuit panels and circuit breakers shall not exceed 80% of the nameplate ampacity of the circuit breakers.	Inspection
NPS-6	All circuits for network equipment racks and cabinets shall be dedicated circuits.	Inspection
NPS-7	A self-testing Emergency Power Off switch shall be installed.	Demonstration

8.4.2.3 AC NETWORK POWER

Performance Objective	Performance	Method of Surveillance
ACP-1	A N+1, 3-Phase AC UPS shall be sized to meet designed systems power capacity, inclusive of the designed system reserve capacity.	Analysis
ACP-2	A 3-Phase UPS shall provide surge protection in a transformer-less topology and non-degenerative filtering for lighting strikes.	Inspection
ACP-3	A 3-Phase UPS shall provide load fault detection and clearing.	Demonstration
ACP-4	A 3-Phase UPS shall provide a harmonic reduction system to detect when harmonics, power factor or phase unbalance are out of limits and automatically corrects to the user-defined set point.	Demonstration
ACP-5	A 3-Phase UPS shall have the capacity to house the batteries in the same cabinet as the UPS for CNs and DNs to save floor space.	Inspection
ACP-6	A 3-Phase UPS shall have a three stage charging process that is capable of extending battery life by 50%.	Test
ACP-7	A 3-Phase UPS shall provide advanced notification prior to battery failure.	Demonstration
ACP-8	A 3-Phase UPS shall have a color touchscreen LCD interface.	Inspection
ACP-9	A 3-Phase UPS shall have internal modularity.	Analysis
ACP-10	A 3-Phase UPS shall have an internal maintenance bypass switch.	Inspection
ACP-11	A 3-Phase UPS shall have a UL 924 certification for emergency lighting.	Inspection
ACP-12	A 3-Phase UPS shall be serviceable thru the front of the cabinet. It shall have the ability to be put against the wall or in a corner.	Inspection

Performance Objective	Performance	Method of Surveillance
ACP-13	A 3-Phase UPS shall be rated an Energy Star Qualified partner with the U.S. Environmental Protection Agency and the U.S. Department of Energy.	Inspection
AACP-14	A 3-Phase UPS shall provide 99% efficiency across the operating load range.	Test
ACP-15	A 3-Phase UPS shall provide double conversion efficiency at 97% or greater.	Test
ACP-16	A 3-Phase UPS shall be equipped with a quick glance from a distance system status, via green/yellow/red LED light panel.	Inspection
ACP-17	A 3-Phase UPS shall be equipped with power monitoring and reporting software that is compatible with HTTP(S), SNMP, MODBUS TCP/IP, Modbus RTU, and BACnet IP protocols.	Inspection
ACP-18	A 3-Phase UPS shall have a safety certification that complies with the UL 1778, UL 924 Emergency Lighting and Power.	Inspection

8.4.2.4 DIRECT CURRENT NETWORK POWER

Performance Objective	Performance	Method of Surveillance
DCP-1	In the event a network component chassis requires DC power, a stand-alone N+1 rack mounted rectifier shall be sized and installed in the same rack to provide the required DC power capacity for that singular chassis component.	Inspection

8.4.2.5 NETWORK POWER DISTRIBUTION SYSTEM

Performance Objective	Performance	Method of Surveillance
NPD-1	PDUs shall have a 3-phase 120/208 VAC four-pole modular track buss way electrical distribution system above each equipment row fed from a 3-Phase UPS.	Inspection
NPD-2	The PDU track buss way power system shall be rated for 225 amps and 600 volts with each equipment row fed from a separate breaker.	Inspection
NPD-3	Each installed PDU track buss way power system shall have metering capabilities for each phase that includes an automatic cycling display that display Voltage, Current, and Power Usage, at a minimum.	Demonstration
NPD-4	A plug-in unit containing a 3-phase, 30-amp circuit breaker and a receptacle or drop-down cord with receptacle shall be installed above each rack as required to accommodate the equipment rack PDU.	Inspection
NPD-5	Equipment racks and cabinets containing equipment with “A” and “B” AC power supplies shall have two (2) plug-in drops and two (2) PDUs provided.	Inspection
NPD-6	Equipment racks and cabinets containing only passive equipment (i.e., unpowered fiber optic patch panels) do not require power drops or PDUs.	Inspection
NPD-7	Each equipment rack or cabinet shall have a combination 120/208 VAC PDU.	Inspection
NPD-8	Each PDU shall have not less than nine (9) IEC 320 standard C13 receptacles.	Inspection
NPD-9	Each PDU shall have not less than three (3) IEC 320 standard C19 receptacles.	Inspection
NPD-10	Each PDU shall have not less than twelve (12) NEMA 5-20 receptacles.	Inspection
NPD-11	Each phase in the PDU shall have a dedicated breaker.	Inspection
NPD-12	Equipment racks and cabinets containing equipment with “A” and “B” power supplies shall have two PDUs provided.	Inspection

8.4.2.6 NETWORK EMERGENCY BACKUP POWER SYSTEM

Performance Objective	Performance	Method of Surveillance
EBP-1	In the event commercial or shore power is interrupted, the 3-Phase UPS batteries shall be sized to provide uninterruptable, transitional power. A fully functional generator will be provided by the Government (B/P/C/S) as the sole source of emergency backup power.	Inspection / Demonstration
EBP-2	The batteries shall conform to the Unified Facilities Criteria (UFC) 3-520-05 and the UFC 3-520-01.	Inspection
EBP-3	The battery system shall use Valve Regulated Lead Acid (VRLA) batteries unless Lithium Ion batteries are approved by the Government.	Inspection
EBP-4	VRLA batteries shall be equipped with a battery management system to manage the battery rest and charge cycles to extend their life.	Test
EBP-5	VRLA batteries systems shall be monitored for cell failure.	Test
EBP-6	A keyed battery disconnect switch shall be installed at the exterior of the building adjacent to the entrance or in a location prescribed by the AHJ.	Inspection

8.4.3 AUXILIARY INFRASTRUCTURE

The contractor shall provide auxiliary infrastructure at the CNs and DNs to support the systems and subsystems delivered as a part of the proposed solution as defined by the Site Specific Requirements. Auxiliary infrastructure consists of the following: equipment racks/cabinets, bracing, seismic bracing, patch panels, ladder rack, wire cable tray, , cabling, cable management system, cable testing, bonding, and grounding.

8.4.3.1 MDF, IDF, AND BACKBOARDS

Performance Objective	Performance	Method of Surveillance
MDF-1	All additional or newly installed MDF, IDF and Backboards shall comply with the Installation Information Infrastructure Architecture (I3A).	Inspection

8.4.3.2 CABINETS, RACKS, AND PATCH PANELS

Performance Objective	Performance	Method of Surveillance
CRP-1	Equipment cabinets and rack mounting, dimensions, doors separation or clearances, load rating, cooling fans, spare capacities, horizontal and vertical cable management, strain relief, shall conform to UFC 3-580-1.	Inspection
CRP-2	Equipment cabinets shall have a minimum load rating of 200 pounds.	Inspection / Analysis
CRP-3	Equipment cabinets shall be equipped with a lockable, removable mesh doors.	Inspection
CRP-4	Equipment cabinets shall be equipped with factory knockouts.	Inspection
CRP-5	Equipment cabinets and racks shall have an angle support and a minimum of 46 Rack Units (RUs) and be equipped with an integrated, electrically isolated ground bar.	Inspection
CRP-6	Equipment cabinets and racks shall be black in color unless otherwise specified.	Inspection
CRP-7	Patch panels shall be provided and conform to the UFC 3-580-1.	Inspection
CRP-8	Patch panels shall be installed in, or adjacent to, the equipment racks or cabinets housing BAN equipment.	Inspection
CRP-9	TIA/EIA 568A duplex connectors on 19-inch rack-mounted panels shall be used unless otherwise directed.	Inspection
CRP-10	Fiber Optic Patch Panels (FOPPs) shall not exceed four RUs.	Inspection
CRP-11	All fiber-optic patch panels shall utilize pre-terminated tailed 12-strand closet connector housing cassette with SC duplex (unless specified otherwise) UPC ceramic connectors.	Inspection
CRP-12	Single-mode and multi-mode fiber optic cables shall be terminated on separate fiber optic patch panels.	Inspection
CRP-13	Patch panel labeling shall conform to TIA/EIA 606-A.	Inspection
CRP-14	Patch cables of varying lengths matching the patch panel they are connecting to shall be provided.	Inspection
CRP-15	Provide bend-insensitive, pre-terminated patch cords capable of being locked into place to avoid accidental disruption of services or tampering.	Inspection
CRP-16	CAT 6 copper cables shall terminate on EIA 568A 2-RU CAT 6 Certified Output Protection Protocol (COPP) Patch Panels.	Inspection
CRP-17	Copper Patch Cables: Copper patch cables shall be 4-pair, 24 American Wire Gauge (AWG) stranded UTP cable, rated for CAT6, with 8-pin modular connectors at each end.	Inspection

Performance Objective	Performance	Method of Surveillance
CRP-18	Copper patch panels shall consist of eight-position modular jacks with rear-mounted, type 110 insulation displacement connectors, category-rated for the UTP system being installed and arranged in rows or columns on 19-inch rack-mounted panels. Nineteen-inch wall-mounted panels may be utilized when necessary.	Inspection
CRP-19	Each FOFP and COPP shall have horizontal cable management either built into it or as an independent management system.	Inspection
CRP-20	All ironwork, including frames, cabinets, racks, and cable ladder racks, shall be installed IAW local seismic zone requirements and manufacturers specifications.	Inspection
CRP-21	All ironwork including frames, cabinets, racks, and cable ladder racks shall be isolated from any wall (at the anchor point), floors (at the anchor point), or ceilings with approved isolating materials.	Inspection

8.4.3.3 LADDER, WIRE CABLE TRAY, CONDUITS, EMT, PULL, AND SPLICE BOXES

Performance Objective	Performance	Method of Surveillance
LDR-1	A single tier cable ladder or wire tray system shall be provided to support for signal cabling above all equipment, cabinets, racks and the MDF. The signal cabling shall be separated from the power cables by not less than 12 inches. The power cable conduit system shall be located above the signal tier of rack. The cable ladder rack system shall not contact any surface of any equipment cabinets/racks.	Inspection
LDR-2	Ladder, wire cable tray, conduits and EMT, pull and splice boxes dimensions, separation and clearances, fill depth, headroom, fill ratios, bend radius, shall conform to the UFC 3-580-01 and I3A.	Inspection
LDR-3	Pull boxes or splice boxes shall conform to the guidance in I3A 3.6.1.3 and Article 314.28 of the National Electrical Code 2008 (NFPA 70).	Inspection
LDR-4	Twelve-inch wide ladder rack shall be used unless otherwise required.	Inspection
LDR-5	The ladder rack system shall be installed to run the full length of the room and the perimeter of the room. Each perpendicular row shall be arranged over the top of the equipment racks.	Inspection
LDR-6	Plastic or composite wire ways designed for fiber optic cables are permissible.	Inspection

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Performance Objective	Performance	Method of Surveillance
LDR-7	Copper cabling shall not be installed in any dedicated fiber optic wire ways.	Inspection

8.4.3.4 BONDING AND GROUNDING

Performance Objective	Performance	Method of Surveillance
GND-1	Metal cabinets, racks, raceways, ladders, cable trays, enclosures, frames, fittings, EMT, pull boxes, FOC and Copper cable armor, Outside Plant (OSP) Point Of Entry (POE), Building Entrance Terminals (BETs) and other metal noncurrent carrying parts that are able to serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault currents likely to be imposed on them.	Inspection
GND-2	All Bonding, Grounding, Testing and Labeling shall conform to the I3A, ANSI/TIA 607-C, IEEE 1100-2005 Emerald Book, MIL-STD-419A and MIL-STD-188 124B. NFPA 70, and ANSI TIA-942, TIA/EIA-569-B, NEC Article 250 and the UFC-3-580-01.	Inspection
GND-3	A 2-hole non-twisting, irreversible, circumferential compression fittings, with a sight inspection hole lug shall be used to connect all bonding conductors to the TMGB, TGB, cabinet, rack and cable ladders.	Inspection

8.4.3.5 FIRE STOP

Performance Objective	Performance	Method of Surveillance
FSP-1	Any existing or newly created pathway thru walls, ceiling or floors that are utilized shall conform to the fire stop requirements found within the UFC 3-580-01, NFPA70, NEC, I3A.	Inspection

8.4.3.6 ENVIRONMENTAL HAZARDS

Performance Objective	Performance	Method of Surveillance
OSH-1	The contractor shall perform limited asbestos abatement in support of minor-construction work under a non-construction contract IAW with established OSHA standards.	Inspection
OSH-2	The contractor shall be expected to take the appropriate safety precaution IAW with established OSHA standards to continue to perform work in support of minor-construction work under a non-construction contract when lead-based paint is present.	Inspection

8.4.3.7 FIBER AND COPPER CABLING

Performance Objective	Performance	Method of Surveillance
FBR-1	All fiber planned for use between the CN and DN's shall be characterized and if less than manufacturer's requirement the Government will be notified.	Inspection
FBR-2	Plenum cables shall be used in all plenum spaces IAW the NFPA 70, or as directed by the AHJ.	Inspection
FBR-3	OSP FOC or Copper cable that extends past the POE by 50 feet, it shall comply with the NFPA 70 Section 800.113.	Inspection
FBR-4	Cables and wiring between subsystems shall be clearly and permanently labeled and conform to the TIA/EIA-606-A.	Inspection

8.5 EXISTING NODES AND EQUIPMENT

The existing nodes and network and voice equipment is provided in Table 5 and Table 6. There may be additional equipment found during the verification site survey.

Table 5 – Existing Nodes and Equipment – MCB Quantico

Existing Nodes and Equipment									
MCB Quantico	Core 0	ADN1	ADN2	ADN3	ADN4	ADN5	ADN6	ADN7	Russel Knox
	DCO	TBS	-	-	MCU	OCS	Upshur	Weapons	-
Building	1999	24204	3255	3300	2076	2189	26100	27282	27130C
Zone #	8	7	4	5	3	2	-	9	1
PBX	Nortel/Avaya SL100/CS2100 CM6	Tellabs Voice Gateway	-	Nortel RCC2	Nortel RCC2	Tellabs T1000	-	Nortel MGk9	-
Voice Firewall	Secure Logix	-	-	-	-	-	-	-	-
Voice Mail	Nortel	-	-	-	-	-	-	-	-
Conference Bridge	Nortel	-	-	-	-	-	-	-	-
SBC									
Gateways	Avaya G450	-	-	Avaya G450	Avaya G450	-	-	Avaya G450	-
MPLS Routers	JB-CE 1	JB-CE 2	-	-	-	-	-	-	-
SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	-	SONET Node	-
DWDM									
Data Distribution Router	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	-	-	-	-
ASLAN Router	Brocade	-	-	-	-	-	-	Brocade	-
GPON OLT	Tellabs 1150	Tellabs 1150	-	-	Tellabs 1150	-	-	Tellabs 1150	-
GPON ONTs - Qty	107	38	-	-	92	-	-	16	-
Data Access Switch - Qty	64	57	35	24	30	22	-	53	2

Table 6 – Existing Nodes and Equipment – Remote Sites

Existing Nodes and Equipment – Remote Sites							
Remote Sites	INHZ	PKWY	SCPA	BAND	BRRK	WNYZ	ANNZ
	NCR	NCR	NCR	HQMC	HQMC	HQMC	HQMC
Data Distribution Router	CISCO 3750		CISCO 3750	CISCO 3750	CISCO 3750	CISCO 2811 CISCO 2911 ES2	-
ASLAN Router	-	-	-	-	-	-	-
GPON OLT	-	-	-	-	-	-	-
GPON ONTs - Qty	-	-	-	-	-	-	-
Data Access Switch - Qty	8	5	1	6	10	5	4

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APPENDIX A – MCB QUANTICO – SITE SPECIFIC EQUIPMENT

Attachment 1 provides the MCB Quantico existing nodes and equipment per site.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)					Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>							
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC			
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM System Security Plan (SSP) and Associated Plans of Action for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A		17. PRICE GROUP	
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-82247		5. CONTRACT REFERENCE SOW, Section 5.2		6. REQUIRING OFFICE USMC, MCSC			18. ESTIMATED TOTAL PRICE
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION			
8. APP CODE N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE	b. COPIES		
					Draft	Final Reg Repro	
<p>16. REMARKS</p> <p>Block 5: Contractor shall provide an SSP in accordance with NIST SP 800-171, indicating whether the Contractor has implemented the security requirements, plans to implement the security requirements, or that the requirement is not applicable. Attached to the SSP shall be a populated POA&M with all outstanding findings discovered during the self-audit describing compliance or non-compliance and plan of action(s) of the total list of security controls. This submission shall be upon award, on a quarterly basis or upon request.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Office 2200 Lester St Quantico, VA 22134</p> <p>Blocks 10-13: The Contractor shall deliver the initial SSP and POA&M (and appropriate extracts thereof) quarterly, or upon Program Management Offices request. The SSP will be reviewed for acceptance by the Government Program Management Office (PMO). The PMO shall be granted full access to validate the information in the Contractor's submission on an ad hoc basis without notice or upon replacement or rotation of the Government PM.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Any further distribution beyond what's listed will be authorized by the Program Management Office (PMO). Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal deliverable, however the Letter of Transmittal should be sent to the PCO to document delivery notification and compliance with this CDRL. Deliver all copies via electronic media where feasible, otherwise deliver in hard copy.</p>				COR	0	1	0
				PCO	0	0	1
				PEO/PfM ISSM	0	0	1
				APM	0	0	1
				15. TOTAL			
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001</small>		H. DATE 6/17/2020	I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259</small>		J. DATE 6/18/2020		

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188		
<small>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>								
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC				
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Cyber Incident Reporting for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A				
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-XXXXXX (see Appendix 1)		5. CONTRACT REFERENCE SOW, Section 1.6.13		6. REQUIRING OFFICE USMC, MCSC				
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE Upon Award	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
						Draft	Final Reg Repro	
16. REMARKS Block 4: Formatting should be in accordance with Appendix 1. Block 5: The Contractor shall report all Cyber Incidents or Compromise related to Controlled Unclassified Information (CUI) on the contractors system/network in accordance to DFARS clause 252.204-7012 to the Damage Assessment Office (DAMO) via the DIB-Net website (http://dibnet.dod.mil) within 72 hours. Block 7: Inspection/acceptance requirements specified elsewhere in the contract. Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Name 2200 Lester St Quantico, VA 22134 Block 10-13: In addition to reporting all Cyber Incidents or Compromises as stated above, the Contractor shall also submit a Cyber Incident Damage Assessment within 72 hours event in accordance with paragraph (d)(4) of DFARS clause 252.204-7012. All information related to Cyber Incidents or Compromises, as defined in DFARS clause 252.204-7012, shall also be relayed to the Defense Cyber Crime Center [dc3.mil] within 15 calendar days of the event. Upon incident, when feasible, the hardware shall not be powered down, but segregated from the network and any Department of the Navy (DoN) CUI separated from contractor-owned information pending investigation. Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Further distribution will be authorized only by the Program Management Office (PMO) Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591 Note: The Government Procuring Contracting Officer (PCO) does not require the formal delivery of the Cyber Incident Report, however a Letter of Transmittal should be sent to the PCO to document formal delivery notification. Send all copies of the report via encrypted email when feasible, otherwise deliver hard copy.				COR		0	1	0
				PCO		0	0	1
				PEO/PfM ISSM		0	0	1
				APfM Logistics		0	0	1
15. TOTAL				0	1	3		
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001 Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:58:47 -0400</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259 049315259 Digitally signed by MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 10:04:52 -0400</small>		J. DATE 6/18/2020		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
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16. REMARKS (Continued)

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(See DoD 5010.12-M for detailed instructions.)

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Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

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Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMS DL), or one-time DID number, that defines data content and format requirements.

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Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

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FOR THE CONTRACTOR

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CONTRACT DATA REQUIREMENTS LIST (1 Data Item)										Form Approved OMB No. 0704-0188													
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.																							
A. CONTRACT LINE ITEM NO.				B. EXHIBIT			C. CATEGORY: TDP _____ TM _____ OTHER _____																
D. SYSTEM/ITEM					E. CONTRACT/PR NO.				F. CONTRACTOR														
1. DATA ITEM NO.		2. TITLE OF DATA ITEM						3. SUBTITLE															
4. AUTHORITY (Data Acquisition Document No.)					5. CONTRACT REFERENCE				6. REQUIRING OFFICE														
7. DD 250 REQ		9. DIST STATEMENT REQUIRED		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION															
8. APP CODE				11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE		b. COPIES Draft Final Reg Repro													
16. REMARKS																							
																				15. TOTAL →			
										G. PREPARED BY					H. DATE			I. APPROVED BY				J. DATE	

17. PRICE GROUP

18. ESTIMATED
TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____
D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR

16. REMARKS *(Continued)*

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

DATA ITEM DESCRIPTION

Title: Contractor's Systems Security Plan and Associated Plans of Action to Implement NIST SP 800-171 on a Contractor's Internal Unclassified Information System

Number: DI-MGMT-82247

AMSC Number: 9992

DTIC Applicable: No

Preparing Activity: OSD-SO

Applicable Forms: None

Approval Date: 20181031

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2018-049

Use/relationship: This Data Item Description (DID) contains the data content, format, and intended use of the Contractor's system security plan (or extracts thereof), to include any associated plans of action, addressing the Contractor's internal unclassified information system(s). When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on an unclassified information system that is owned, or operated by or for, the Contractor, the Contractor shall develop, document, and periodically update a system security plan(s), to include any associated plans of action, for the Contractor's internal unclassified information system in accordance with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations. Security Requirement 3.12.4 of the NIST SP 800-171 requires that system security plans describe system boundaries, system environments of operation, how security requirements are implemented, and the relationships with or connections to other systems. Security Requirement 3.12.2 of the NIST SP 800-171 requires that plans of action describe how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's unclassified information system. The system security plan (or extracts thereof) and any associated plans of action may be used by the government as input to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or operated by or for, the Contractor (i.e., Contractor's internal unclassified information system). This DID contains the information that shall be conveyed within the system security plan and any associated plans of actions for the Contractor's internal unclassified information system. There is no prescribed format or specified level of detail for how that information is conveyed. There is no requirement for the government to approve the system security plan or any associated plans of action for the Contractor's internal unclassified information system, but the government may request that the Contractor submit the system security plan (or extracts thereof), and any associated plans of action, such that the government may review the Contractor's implementation of security requirements. When requested by the government, the submitted system security plan (or extracts thereof) and any associated plans of action for the Contractor's internal unclassified internal information system may: - Demonstrate to the government the Contractor's implementation or planned implementation of the security requirements for their internal unclassified information system, or

- Be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or

operated by or for, the Contractor (i.e., Contractor's internal unclassified information system).
Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including development dates and dates of any applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format acceptable.

3. Content: The system security plan (or extracts thereof) shall include a description of system boundaries, system environments of operation, how security requirements are implemented or how organizations plan to meet the requirements, and the relationships with or connections to other systems. Any associated plans of action shall include a description how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's information system.

3.1. Cover Page: The cover page of the system security plan (or extracts thereof) and any associated plans of action shall identify the following information:

3.1.1. Title of the document (i.e., Systems Security Plan and Associated Plans of Action for [Name of Contractor's Internal Unclassified Information System])

3.1.2. Company name

3.1.3. Data Universal Numbering Systems (DUNS) Number

3.1.4. Contract number(s) or other type of agreement

3.1.5. Facility Commercial and Government Entity (CAGE) code(s)

3.1.6. System that this System Security Plan and any associated Plans of Action addresses

3.1.7. Date of latest revision

3.1.8. All appropriate distribution and classification statements/markings

3.2. System Identification: The purpose of the system security plan shall be communicated in this section, to include a description of the function/purpose of the Contractor's internal unclassified information system(s)/network(s) that is (are) addressed in the plan.

3.3. System Environment: A detailed topology narrative and graphic shall be included that clearly depicts the Contractor's internal unclassified information system boundaries, system interconnections, and key components. This does not require depicting every device, but would include an instance of operating systems in use, virtual and physical servers (e.g., file, print, web, database, application), as well as any networked workstations, firewalls, routers, switches, copiers, printers, lab equipment, etc. If components of other systems that interconnect/interface with this system need to be shown on the diagram, denote the system boundaries by referencing the security plans or names and owners of the other system(s) in the diagram. Include or reference (e.g., to an inventory database or spreadsheet) a

complete hardware and software inventory, including make/model/version and maintenance responsibility.

3.4. Security Requirements: Describe how the Contractor addresses/will address security requirements in each of the following NIST SP 800-171 security requirement families (including basic and derived requirements) for protecting covered defense information in the Contractor's systems and organizations:

- 3.4.1. Access Control (3.1.1 – 3.1.x)
- 3.4.2. Awareness and Training (3.2.1 – 3.2.x)
- 3.4.3. Audit and Accountability (3.3.1 – 3.3.x)
- 3.4.4. Configuration Management (3.4.1 – 3.4.x)
- 3.4.5. Identification and Authentication (3.5.1 – 3.5.x)
- 3.4.6. Incident Response (3.6.1 – 3.6.x)
- 3.4.7. Maintenance (3.7.1 – 3.7.x)
- 3.4.8. Media Protection (3.8.1 – 3.8.x)
- 3.4.9. Personnel Security (3.9.1 – 3.9.x)
- 3.4.10. Physical Protection (3.10.1 – 3.10.x)
- 3.4.11. Risk Assessment (3.11.1 – 3.11.x)
- 3.4.12. Security Assessment (3.12.1 – 3.12.x)
- 3.4.13. System and Communications Protection (3.13.1 – 3.13.x)
- 3.4.14. System and Information Integrity (3.14.1 – 3.14.x)

3.5. Plans of Action: In accordance with Security Requirement 3.12.2, provide any plans of action developed to address how and when the Contractor will implement any security requirements not yet implemented, identify known deficiencies and vulnerabilities in the contractor's internal unclassified information system, how and when the Contractor will correct identified deficiencies and reduce or eliminate vulnerabilities in the Contractor's system.

End of DI-MGMT-82247

DATA ITEM DESCRIPTION**Title: Cyber Incident Reporting for a Contractor's Internal Unclassified Information System(s)****Number: DI-MGMT-XXXXX****AMSC Number: YYYY****DTIC Applicable: No****Preparing Activity: TBD****Applicable Forms: None****Approval Date: TBD****Limitation: TBD****GIDEP Applicable: No****Project Number: MGMT-XXXX-XXX**

Use/relationship: When DFARS Clause 252.204-7012 is included in a contract for which Controlled Unclassified Information (CUI) – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted during the course of executing the terms a Department of Defense (DoD) contract, cyber incidents shall be reported to the Defense Cyber Crime Center (DC3) via the DIBNet portal.

This Data Item Description (DID) contains the information that is required of the Contractor submitting the incident report to DC3.

This information, once reported, will be shared by DC3 as threat information between the DoD and DIB companies. When DC3 receives a DFARS cyber incident report, DC3 will send an unclassified encrypted email containing the submitted incident report to the government Contracting Officer point of contact identified in the submitted report to have the report placed in the contract file to document the action, with a courtesy copy to the following:

- Director, DC3/DCISE
- Director, OSD DAMO
- Director, DIB CS/IA Program Office
- Contract Program Management Office

Requirements:

1. Format: Use the format prescribed through the DIBNet Portal at <http://dibnet.dod.mil>.

- Under “DoD’s DIB Cybersecurity (CS) Program” on the right side of the page, select “Voluntary Report”.
- Since this is reporting is to satisfy a contractual requirement, select “Mandatory Incident Report”.
- Follow the “Mandatory Incident Report” wizard for the following:
 - General Information
 - I. Company Identification
 - II. Company POC Information
 - III. Contract or other Agreement
 - IV. Incident Information
 - V. Ancillary Information

End of DI-MGMT-XXXX

DATA ITEM DESCRIPTION

Title: CONTRACTOR'S RECORD OF TIER 1 LEVEL SUPPLIERS RECEIVING/ DEVELOPING COVERED DEFENSE INFORMATION

Number: DI-SCRE-82258

AMSC Number: 10008

DTIC Applicable: No

Preparing Activity: RS

Applicable Forms: None

Approval Date: 20190313

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2019-010

Use/relationship: When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on a tier 1 level supplier's internal unclassified information system. (DFARS Clause 252.204- 7012 can be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252204.htm>)

a. This Data Item Description (DID) contains the information that is required of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information. This information will be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned or operated by, or for, the contractor (i.e. contractor's internal unclassified information system). This information will:

(1) Demonstrate to the government the Contractor's ability to restrict the dissemination of covered defense information specified in, or developed under, the contract to subcontractors that execute requirements that involve the covered defense information.

(2) Demonstrate to the government the Contractor's ability to ensure that their tier 1 level suppliers safeguard covered defense information in accordance with DFARS Clause 252.204- 7012.

b. This DID contains the format, content, and intended use information for the data deliverable resulting from the work task described in the contract.

Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including approval dates and dates of applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format is acceptable.

3. Content: The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information must include a description of how the Contractor will identify and restrict the dissemination of covered defense information to subcontractors who require the covered defense information to execute the requirements in their contract and how the Contractor will ensure that their tier 1 level suppliers safeguard covered defense information with the requirements of DFARS Clause 252.204-7012. The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include the following:

3.1. Cover Page: The cover page of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include:

DI-SCRE-82258

- a. Title of the document (i.e., [Name of Contractor] Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information
- b. Contractor's Data Universal Numbering Systems (DUNS) and Commercial and Government Entity (CAGE) code numbers
- c. Contract number(s) or other type of agreement (if available)

3.2. Tier 1 Level Supplier Information (for each Tier 1 Level Supplier receiving/developing covered defense information associated with this contract)

- a. Supplier Name
- b. Supplier contract and/or agreement number (if available)
- c. Supplier Point of Contact: name, email, and phone number
- d. Date the Tier 1 Level Supplier sub contract was put in place
- e. Number of sub contracts with Tier 1 Level Supplier
- f. Supplier contract and/or agreement contains or will contain substance of DFARS Clause 252.204-7012 Y/N
- g. Supplier contract and/or agreement contains or will contain cyber security measures and/or requirements other than those identified in DFARS Clause 252.204-7012 and National Institute of Standards and Technology (NIST) Special Publication (SP) 800- 171 Rev 1: Y/N (NIST SP 800-171 can be found at <https://csrc.nist.gov/publications/detail/sp/800-171/rev-1/final>
- h. Contractor's DUNS and CAGE numbers:

- i. Supplier has conducted or will conduct a self-assessment in accordance with NIST SP 800-171A:Y/N (NIST SP 800-171A can be found at <https://csrc.nist.gov/publications/detail/sp/800-171a/final>)
- j. Supplier System Security Plan and Associated Plans of Action in accordance with NIST SP 800-171 Rev 1 Security Requirement 3.12.4 and 3.12.2
- k. List of Supplier's Tier 1 Level Suppliers receiving and/or developing covered defense information

END OF DI-SCRE-82258

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++=	Total Ports per Site
QUAN	121	52	50	237	10	6	0		0	18	950	19,944
GPON	0							49			0	0
INHZ	4	2	6							2	30	480
PKWY	0	0		15							12	720
SCPA	0	0		3							4	144
BAND	0	0	0								0	0
BRRK	0	0	0	0						0	0	0
WNYZ	0	0	0	0						0	0	0
ANNZ	2	1		3						0	10	240
Total	127	55	56	258	10	6	0	49	0	20	1006	21,528

**These 8 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS

**These 4 port switches will convert to C9300L-24P-4X-A switches once we validate through the VSS

C9300L-24P-4X-A	127
C9300L-48P-4X-A	55
C9300-48P-A	330
Total EUB Switches	512
C9300-48P-A With NM-8X	234
C9300-48P-A With No NM	96
STACK-T1-3M	24
CAB-SPWR-150CM	24

NOTE: Total switches proposed does not currently take into account the 25% growth requirement. This estimate is based on a 1 for 1 refresh and included necessary licensing to support SDA/Multi-tenancy) We will dial this number in following the VSS which will then shed light on current utilization with projected growth factored in

Host Name	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	8 Port	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
QUAN-U03-AS-21	WS-C3560V2-24TS-S	1										4 Bldg_0711_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3HJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-14	WS-C3560V2-24TS-S	1										4 Bldg_0716_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X379	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-34	WS-C3560V2-48TS-S		1									4 Bldg_1001_Floor_0001_Room_0001_Rack_0001_	FDO1719Y0XA	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-58	WS-C3560V2-24TS-S	1										4 Bldg_1002_Floor_0001_Room_0001_Rack_0001_	FDO1437X020	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-25	WS-C4506-E		5									4 Bldg_1019_Floor_0001_Rm_Telco_Rack_0001_	SPE1730008V	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_1304_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X376	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_13201_Floor_0001_Room_Closet_Rack_0001_	FDO1437X039	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-29	WS-C3560V2-48TS-E		1									4 Bldg_15_Floor_0001_Room_0001_Rack_0001_	FDO1529X1WX	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-60	WS-C3560V2-24TS-S	1										4 Bldg_15000_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NH	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-61	WS-C3560V2-24TS-S	1										4 Bldg_15001_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2NU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-62	WS-C3560V2-24TS-S	1										4 Bldg_15002_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-64	WS-C3560V2-24TS-S	1										4 Bldg_15004_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y139	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-65	WS-C3560V2-24TS-S	1										4 Bldg_15005_Floor_0001_Rm_Telco1_Rack_0001_	FDO1645Y12X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-66	WS-C3560V2-24TS-S	1										4 Bldg_15006_Floor_Basement_Room_Telco1_Rack_0001	FDO1645Y13J	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-67	WS-C3560V2-24TS-S	1										4 Bldg_15007_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y13L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-68	WS-C3560V2-24TS-S	1										4 Bldg_15008_Floor_0001_Rm_0001_Rack_0001_	FDO1643Y2RW	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-69	WS-C3560V2-24TS-S	1										4 Bldg_15009_Floor_0001_Rm_0001_Rack_0001_	FDO1645Y138	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-41	WS-C3560V2-24TS-S	1										4 Bldg_17_Floor_0001_Room_0001_Rack_0001_	FDO1437V146	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-42	WS-C3560V2-24TS-S	1										2 Bldg_17_Floor_0001_Room_0002_Rack_0001_	FDO1437V2AQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-43	WS-C4503-E			2								2 Bldg_17_Floor_2_Room_219_Rack_0001_	FXS1735Q2AB	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-27	WS-C3560V2-48TS-S		1									4 Bldg_1775_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X19P	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-82	WS-C4503-E			2								2 Bldg_1775_Floor_0001_Room_telco1_Rack_0001_	SPE1735003S	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-20	WS-C3560V2-24TS-S	1										2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1437X02V	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-21	WS-C3560V2-48TS-S		1									2 bldg_1775_Floor_1_Room_0001_Rack_0001_	FDO1633X19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-47	WS-C4503-E			2								4 Bldg_1776_Floor_0001_Room_Telco1_Rack_0001_	SPE171500KE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-74	WS-C4503-E			2								4 Bldg_1998_Floor_0001_Room_Telco_1_Rack_0001_	SPE134300YL	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-44	WS-C3560V2-48TS-E		1									4 Bldg_1999_Floor_0001_Room_0001_Rack_0001_	FDO1529X1X5	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-01	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC1643006Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DR-02	WS-C6509-E									1		Bldg_1999_Floor_0001_Room_Telco1_Rack_0001_	SMC16430072	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-04	WS-C3560V2-48TS-S		1									4 bldg_2004_Floor_1_Room_0117_Rack_0001_	FDO1633X19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-03	WS-C4506-E				3							2 Bldg_2004_Floor_1_Room_TELCO1_Rack_1_	FXS1732Q3ZC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-38	WS-C4506-E				3							4 Bldg_2006_Floor_0001_Room_108_Rack_0001_	FXS1732Q3WE	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-39	WS-C4506-E				3							2 Bldg_2006_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3ZU	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-40	WS-C4506-E				3							2 Bldg_2006_Floor_3_Room_308_Rack_1_	FXS1731Q4AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-06	WS-C3560V2-48TS-S		1									2 Bldg_2006_Floor_Basement_Room_B014_Rack_1_	FDO1633X1BR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-21	WS-C4506-E				3							4 Bldg_2008_Floor_0001_Room_Telco1_Rack_0003_	FXS1732Q3CN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-19	WS-C4506-E				3							2 Bldg_2008_Floor_0003_Room_0003_Rack_0001_	SPE173000A4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-20	WS-C4506-E				3							2 Bldg_2008_Floor_2_Room_231_Rack_2_	SPE173000C9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-07	WS-C4506-E				3							4 Bldg_2009_Floor_0002_Room_0002_Rack_0001_	FXS1732Q406	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-08	WS-C4506-E				3							2 Bldg_2009_Floor_3_Room_332_Rack_1_	SPE172801YN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-31	WS-C4506-E				3							4 Bldg_2010_Floor_0002_Rm_211_Rack_0001_	SPE17300087	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-32	WS-C4506-E											4 Bldg_2011_Floor_0001_Rm_116_Rack_0002_	SPE17300096	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-21	WS-C3560V2-48TS-E		1									4 Bldg_2013_Floor_0001_Room_0001_Rack_0001_	FDO1529X1XV	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-20	WS-C3560V2-24TS-S	1										2 Bldg_2013_Floor_1_Room_BreakRm_Rack_1_	FDO1437V110	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-22	WS-C3560V2-48TS-E		1									4 Bldg_2014_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1XG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-70	WS-C3560V2-48PS-S		1									4 Bldg_2015_Floor_0001_Rm_Telco1_Rack_0001_	FDO1644Y2C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-09	WS-C3560V2-48TS-S		1									4 Bldg_2032_Floor_0001_Room_000_Rack_001_	FDO1723Y2D5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-26	WS-C4506-E				3							2 Bldg_2032_Floor_0001_Room_Telco1_Rack_0001_	SPE173000B5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-24	WS-C3560V2-48TS-S		1									2 Bldg_2032_Floor_0001_Room_Telco2_Rack_0001_	FDO1633X1A2	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-01	WS-C4506-E				3							4 Bldg_2034_Floor_0001_Room_Telco1_Rack_0001_	SPE1728020L	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-02	WS-C4506-E				3							2 Bldg_2034_Floor_1_Rm_TelcoSouth_Rack_3_	SPE17280208	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-10	WS-C3560V2-48TS-S		1									4 Bldg_2043_Floor_1_Rm_124_Rack_1_	FDO1636Y15K	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-11	WS-C4503-E			2								2 Bldg_2043_Floor_1_Room_EMB_Rack_1_	SPE1343002Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-12	WS-C4506-E				3							2 Bldg_2043_Floor_1_Room_Telco_1_Rack_0002_	FXS1731Q4AR	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-46	WS-C3560V2-24TS-S	1										4 Bldg_2045_Floor_0001_Room_0001_Rack_0001_	FDO1437V125	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-17	WS-C4506-E				3							4 Bldg_2048_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3W0	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-03	WS-C4506-E				3							4 Bldg_2076_Floor_0001_Room_0001_Rack_0001_	FXS1732Q411	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-02	WS-C4506-E				3							2 Bldg_2076_Floor_0001_Room_0006_Rack_0001_	FXS1732Q410	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-01	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PK	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-DR-02	WS-C6506-E									1		Bldg_2076_Floor_0001_Room_0006_Rack_0001_	SAL172264PJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-04	WS-C4506-E				3							2 Bldg_2076_Floor_0002_Room_0002_Rack_0001_	FXS1732Q3ZG	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-35	WS-C3560V2-48TS-E		1									4 Bldg_2077_Floor_0002_Room_0002_Rack_0001_	FDO1529X1X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-37	WS-C3560V2-48TS-E		1									2 Bldg_2077_Floor_0002_Room_0210_Rack_0001_	FDO1529X263	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-36	WS-C4506-E				3							2 Bldg_2077_Floor_Basement_Rm_B28_Rack_0001_	FXS1732Q3WC	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-17	WS-C4506-E				3							4 Bldg_2079_Floor_1_Rm_138_Rack_1_	FXS1732Q412	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-18	WS-C4506-E				3							2 Bldg_2079_Floor_2_Rm_226_Rack_1_	SPE17280245	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-81	WS-C3560V2-24TS-S	1										4 bldg_2080_Floor_1_Room_0001_Rack_0001_	FDO1437V291	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-32	WS-C4503-E			2								4 Bldg_2082_Floor_0001_Room_115_Rack_0001_	SPE171500KJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-26	WS-C3750G-48PS-S		1									2 Bldg_2082_Floor_0001_Room_B12_Rack_0001_	FOC1109Y2F1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-40	WS-C3750X-48P-S			2								4 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1719H3KR,FDO1713Z0RP	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-43	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	FDO1720R1HM,FDO1608K119	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-41	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0002_Room_Telco2_Rack_0001_	FDO1720R1WE,FDO1719H3L1	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-42	WS-C3750X-48P-S				3							2 Bldg_2084_Floor_0003_Room_Telco3_Rack_0001_	FDO1719H3KB,FDO1722P0HQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-07	WS-C3560V2-48TS-E		1									4 Bldg_2100_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WP	NCR QUAN Nodes	NCR	QUAN

QUAN-U04-AS-08	WS-C3560V2-48TS-S		1							2	Bldg_2100_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X190	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-43	WS-C4503-E			2						4	Bldg_2105_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-27	WS-C3560V2-24TS-S	1								2	Bldg_2105_Floor_0002_Room_Telco2_Rack_0001_	FDO1437V10K	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-49	WS-C3560V2-24TS-S	1								4	Bldg_2105T_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-12	WS-C3560V2-24TS-S	1								4	Bldg_2106_Floor_0001_Room_0164_Rack_1_	FDO1438X004	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-51	WS-C3560V2-24TS-S	1								4	Bldg_2110_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y191	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-11	WS-C3560V2-24TS-S	1								4	Bldg_2117_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X36H	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-15	WS-C3560V2-24TS-S	1								4	Bldg_2118_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V11J	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-01	WS-C4506-E				3					4	Bldg_2121_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3W6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-60	WS-C3560V2-24TS-S	1								4	Bldg_2122_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y13Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-61	WS-C3560V2-24TS-S	1								4	Bldg_2123_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y121	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-44	WS-C3560V2-24TS-S	1								4	Bldg_2124_Floor_0001_Room_Teco1_Rack_0001_	FDO1438X05W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-84	WS-C3560V2-24TS-S	1								4	bldg_2132_Floor_1_Room_0119_Rack_0001	FDO1437X3D5	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_2177_Floor_1_Room_1_Rack_Telco1_	FDO1645Y13Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-08	WS-C3560V2-24TS-S	1								4	Bldg_2179_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X01L	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_2187_Floor_0001_Room_Teco2_Rack_0001_	FDO1437X01Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-03	WS-C3560V2-24TS-S	1								2	Bldg_2187_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X3LL	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-22	WS-C3560V2-24TS-S	1								4	Bldg_2189_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y14Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-01	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0001_	SAL1633KRTA	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-DR-02	WS-C6506-E								1		Bldg_2189A_Floor_0001_Room_Telco1_Rack_0004_	SAL17236L1N	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-07	WS-C4506-E				3					4	Bldg_2189N_Floor_0001_Room_Telco1_Rack_0001_	SPE173000DQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-07	WS-C4506-E			2						4	Bldg_2200_Floor_0001_Room_153A_Rack_0001_	FXS1732Q408	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-06	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_B-wing_Rack_0001_	SPE1343012Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-05	WS-C4503-E			2						2	Bldg_2200_Floor_0001_Room_C-wing_Rack_0001_	SPE134300VS	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-02	WS-C4506-E				3					2	Bldg_2200_Floor_0001_Room_Telco1_Rack_0003_	FOX1338GZZK	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-08	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_207_Rack_0001_	FOX1338GWXX	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-09	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_229_Rack_0001_	FXS1732Q3Z1	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-10	WS-C4506-E				3					2	Bldg_2200_Floor_0002_Room_252_Rack_0001_	FOX1338GZL	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-03	WS-C4503-E		2							2	Bldg_2200_Floor_000B_Room_B20B_Rack_0002_	SPE1343012R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-28	WS-C6506-E		2							2	Bldg_2200_Floor_000B_Room_B65_Rack_0001_	SAL172264NQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-04	WS-C4503-E		2							2	Bldg_2200_Floor_Basement_Room_A-wing_Rack_0001_	SPE1340004Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-12	WS-C4506-E				3					4	Bldg_2201A_Floor_0001_Room_110_Rack_0001_	FXS1732Q3CV	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-01	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172369MW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-DR-02	WS-C6506-E									2	Bldg_2201A_Floor_0001_Room_Telco1_Rack_0001_	SAL172264PD	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-20	WS-C4506-E				3					4	Bldg_2202_Floor_0001_Room_105_Rack_0001_	FXS1732Q3W5	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-22	WS-C4506-E				3					2	Bldg_2202_Floor_0002_Room_0210_Rack_0001_	SPE173000BF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-18	WS-C4506-E				3					2	Bldg_2202_Floor_000B_Room_0001_Rack_0001_	FXS1732Q3VQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-13	WS-C4506-E				3					4	Bldg_2203_Floor_1_Room_Telco1_Rack_1_	FOX1335GRHE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-32	WS-C4503-E		2							4	Bldg_2203A_Floor_0001_Room_0001_Rack_0001_	SPE171500KF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-26	WS-C3560V2-48TS-E		1							4	Bldg_2204_Floor_0001_Room_114_Rack_0001_	FDO1529X1WQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-24	WS-C4503-E		2							2	Bldg_2204_Floor_Basement_Room_B17_Rack_0001_	FXS1735Q2AF	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-16	WS-C4506-E				3					4	Bldg_2207_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3WH	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-15	WS-C3560V2-48TS-E		1							2	Bldg_2207_Floor_0002_Room_0002_Rack_0002_	FDO1529X1XU	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-14	WS-C4506-E				3					2	Bldg_2207_Floor_000B_Room_B05_Rack_0001_	FOX1338GZE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-34	WS-C4503-E		2							4	Bldg_2208_Floor_1_Room_Telco1_Rack_1_	FXS1733Q0HZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-31	WS-C4506-E				3					4	Bldg_2209T_Floor_1_Room_Telco1_Rack_1_	SPE1728024H	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-29	WS-C4506-E				3					4	Bldg_2210_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-30	WS-C4506-E				3					2	Bldg_2210_Floor_0002_Room_Telco2_Rack_0001_	FXS1732Q3WW	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-19	WS-C3560V2-24TS-S	1								4	Bldg_2247_Floor_0001_Room_0001_Rack_0001_	FDO1438X02R	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-21	WS-C3560V2-24TS-S	1								4	Bldg_2248_Floor_0001_Room_0001_Rack_0001_	FDO1437X02Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-33	WS-C3560V2-24TS-S	1								4	Bldg_2249_Floor_0001_Room_0001_Rack_0001_	FDO1437V12W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-72	WS-C4506-E				3					4	Bldg_2300_Floor_1_Room_Telco1_Rack_1_	FXS1732Q3XD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-71	WS-C4506-E				3					4	Bldg_2300A_Floor_1_Room_Telco1_Rack_1_	FXS1732Q0DN	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-73	WS-C4506-E				3					4	Bldg_2300B_Floor_1_Room_Telco1_Rack_1_	SPE173000C6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-10	WS-C3560V2-24TS-S	1								4	Bldg_2321_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-64	WS-C3560V2-24TS-S	1								4	Bldg_23402_Floor_1_Room_1_Rack_1_	FDO1645Y13A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-41	WS-C3560V2-24TS-S	1								4	Bldg_24004_Floor_1_Room_Telco_Rack_1_	FDO1438X01H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-58	WS-C3560V2-24TS-S	1								4	Bldg_24005_Floor_1_Room_0001_Rack_1_	FDO1437X3GR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-04	WS-C3560V2-24TS-S	1								4	Bldg_24006_Floor_0001_Room_telco10_Rack_0001_	FDO1437V0YJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-75	WS-C3560V2-24TS-S	1								4	Bldg_24008_Floor_1_Room_0001_Rack_1_	FDO1437X3GZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-10	WS-C4506-E				3					4	Bldg_24009_Floor_0001_Room_0152_Rack_0001_	FXS1732Q3WY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-42	WS-C3560V2-48TS-S		1							4	Bldg_24015_Floor_1_Room_Telco1_Rack_1_	FDO1633X18D	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-44	WS-C3560V2-48TS-S		1							4	Bldg_24017_Floor_0001_Room_telco1_Rack_0001_	FDO1633X1B0	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-47	WS-C3560V2-24TS-S	1								4	Bldg_24018_Floor_0001_Room_0001_Rack_0001_	FDO1436X3LR	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-28	WS-C3560V2-24TS-S	1								4	Bldg_24114_Floor_0001_Room_0000_Rack_0000_	FDO1704Y2SS	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-01	WS-C3560V2-24TS-S	1								4	Bldg_24142_Floor_0001_Room_Office_Rack_0001_	FDO1437V12H	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-06	WS-C3560V2-24TS-S	1								4	Bldg_24144_Floor_0001_Room_0001_Rack_0001_	FDO1436X22U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-30	WS-C3560V2-48TS-S		1							4	Bldg_24157_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-34	WS-C4506-E				3					4	Bldg_24164_Floor_0001_Room_0169_Rack_0001_	FXS1646Q40C	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-11	WS-C4506-E				3					2	Bldg_24164_Floor_0001_Room_117_Rack_0001_	SPE17300085	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-35	WS-C4506-E				3					2	Bldg_24164_Floor_0002_Room_0229_Rack_0001_	FXS1647Q04E	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-07	WS-C3560V2-24TS-S	1								4	Bldg_24180_Floor_0001_Room_0001_Rack_0001_	FDO1436X3KV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-09	WS-C3560V2-24TS-S	1								4	Bldg_24191_Floor_0001_Room_0001_Rack_0001_	FDO1438X018	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-50	WS-C3560V2-48TS-S		1							4	Bldg_24192_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X183	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-49	WS-C3560V2-48TS-S		1							2	Bldg_24192_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19L	NCR QUAN Nodes	NCR	QUAN

QUAN-U07-AS-48	WS-C3560V2-48TS-S		1								4	Bldg_24193_Floor_1_Rm_Telco1_Rack_0001_	FDO1633X19T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-26	WS-C3560V2-24TS-S	1									4	Bldg_24193A_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-43	WS-C3560V2-48TS-S		1								4	Bldg_24194_Floor_0002_Room_Telco1_Rack_0001_	FDO1633X19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-03	WS-C3560V2-24TS-S	1									4	Bldg_24195_Floor_0001_Room_0001_Rack_0001_	FDO1645Y199	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-36	WS-C3560V2-24TS-S	1									4	Bldg_24196_Floor_1_Room_Telco1_Rack_1_	FDO1437V28G	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-51	WS-C3560V2-24TS-S	1									4	Bldg_24197_Floor_0001_Room_telco1_Rack_0001_	FDO1437X3DK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-79	WS-C3560V2-48TS-E		1								4	bldg_24200_Floor_1_Room_0149_Rack_0001	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-08	WS-C4506-E				3						4	Bldg_24202_Floor_1_Room_143_Rack_1_	FXS1731Q4AV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-38	WS-C3560V2-24TS-S	1									4	Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FDO1645Y12V	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-01	WS-C6506-E								1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL172369MY	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DR-02	WS-C6506-E								1			Bldg_24204_Floor_0001_Room_Telco1_Rack_0003-Row-0004_	SAL1718474L	NCR QUAN Nodes	NCR	QUAN
DR									1			Bldg_26100				
DR									1			Bldg_26100				
QUAN-U07-AS-61	WS-C4506-E				3						4	Bldg_26100_Floor_0001_Room_Telco1_Rack_0001_	SPE173000D1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-62	WS-C3750X-24T-S	1									2	Bldg_26100_Floor_1_Room_RWC1_Rack_1_	FDO1746Z0JL	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-63	WS-C3750X-24T-S	1									2	Bldg_26100_Floor_1_Room_RWC2_Rack_1_	FDO1745P23K	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-71	WS-C3560V2-24TS-S	1									4	Bldg_26101_Floor_0001_Room_0000_Rack_0001	FDO1710Y0N2	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-68	WS-C3750X-24T-S	1									4	Bldg_26133_Floor_1_Room_Telco1_Rack_1_	FDO1746H070	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-70	WS-C3560V2-24TS-S	1									4	Bldg_26143_Floor_1_Room_Telco1_Rack_1_	FDO1437X3DV	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-69	WS-C3560V2-24TS-S	1									4	Bldg_26144_Floor_1_Room_Telco1_Rack_1_	FDO1438X05A	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-65	WS-C3750X-24T-S	1									4	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746H0ME	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-66	WS-C3750X-24T-S	1									2	Bldg_2649_Floor_1_Room_1_Rack_1_	FDO1746P0Y9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-67	WS-C3750X-24T-S	1									4	Bldg_2650_Floor_1_Room_1_Rack_1_	FDO1746H0MK	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-19	WS-C3560V2-24TS-S	1									4	Bldg_27001_Floor_0001_Room_0001_Rack_0001_	FDO1437V0W4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-15	WS-C3560V2-24TS-S	1									4	Bldg_27007_Floor_0001_Room_0001_Rack_0001_	FDO1438X03L	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-52	WS-C3560G-24TS-S	1									4	Bldg_27028T_Floor_0001_Room_Telco1_Rack_01_	FOC1623V0TW	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-18	WS-C3560V2-24TS-S	1									4	Bldg_27046_Floor_0001_Room_0001_Rack_0001_	FDO1437V0ZB	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-25	WS-C3560V2-24TS-S	1									4	Bldg_27067_Floor_0001_Room_0001_Rack_0001_	FDO1438X02T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-29	WS-C3560V2-24TS-S	1									4	Bldg_27200_Floor_1_Room_Telco1_Rack_1_	FDO1437X380	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-22	WS-C3560V2-24TS-S	1									4	Bldg_27210_Floor_0001_Room_604_Rack_0001_	FDO1437V0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-21	WS-C4506-E				3						4	Bldg_27211_Floor_0001_Room_S4_Rack_0001_	SPE173000B9	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-24	WS-C3560V2-24TS-S	1									4	Bldg_27231_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X015	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-20	WS-C3560V2-48TS-S		1								4	Bldg_27241_Floor_0001_Rm_Telco1_Rack_0001_	FDO1633X185	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-39	WS-C3560V2-48TS-E		1								4	Bldg_27250_Floor_0001_Rm_Telco1_Rack_0001_	FDO1529X1XH	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-45	WS-C3560V2-24TS-S	1									2	Bldg_27250_Floor_0001_Room_telco1_Rack_0001_	FDO1437V22T	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-46	WS-C3560V2-24TS-S	1									4	Bldg_27251_Floor_0001_Room_0001_Rack_0001_	FDO1437V0X3	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-23	WS-C3560V2-24TS-S	1									4	Bldg_27270_Floor_0001_Room_0001_Rack_0001_	FDO1437V272	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-32	WS-C3560V2-48TS-E		1								4	Bldg_27275_Floor_2_Room_206_Rack_2_	FDO1528X0CG	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-12	WS-C3560V2-48TS-S		1								4	Bldg_27277_Floor_2_Room_206_Rack_2_	FDO1633X1AD	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-40	WS-C3560V2-24TS-S	1									4	Bldg_27279_Floor_0001_Room_telco10_Rack_0001_	FDO1438X036	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-17	WS-C4506-E				3						4	Bldg_27281_Floor_0001_Rm_Telco1_Rack_0001_	FXS1732Q3EE	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-14	WS-C6506-E				3						4	Bldg_27282_Floor_0001_Room_0001_Rack_0001_	SAL172369MS	NCR QUAN Nodes	NCR	QUAN
DR									1			Bldg_27282				
DR									1			Bldg_27282				
QUAN-U07-AS-27	WS-C3560V2-48TS-E		1								4	Bldg_27290TX_Floor_0001_Room_Telco1_Rack_0001_	FDO1436X1P5	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-13	WS-C3560V2-24TS-S	1									4	Bldg_27400_Floor_0001_Room_0001_Rack_0001_	FDO1437X356	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-56	WS-C4506-E				3						4	Bldg_27402_Floor_0001_Room_0001_Rack_0008	FOX1614GXY4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-57	WS-C4506-E				3						2	Bldg_27402_Floor_0001_Room_0001_Rack_0008	SPE154901XJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-55	WS-C3560V2-48TS-S		1								2	Bldg_27402_Floor_0001_Room_Telco1_Rack_0001	FDO1633X1AY	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-05	WS-C3850-48U					6					4	BLDG_2741_FLR_02_RM_209_RN2_U30	FCW1951DOBJ,FCW1951COEY,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U07-AS-54	WS-C3560V2-24TS-S	De-Scope 1								De-Scope 4	4	Bldg_27410_Floor_0001_Room_135_Rack_0001_	FDO1437V12M	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-01	WS-C3850-48U						De-Scope 7			De-Scope 2		BLDG_27410_FLR_01_RM_129_RN2_U12	FOC1951X0S4,FOC1951U0R1,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-06	WS-C3850-48U		De-Scope 1							De-Scope 2		BLDG_27410_FLR_01_RM_135_R1_U39	FCW1951D10R	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-03	WS-C3850-48U						De-Scope 7			De-Scope 2		BLDG_27410_FLR_01_RM_141_RN3_U26B	FOC1938X1K7,FCW1941C01R,	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-02	WS-C3850-48U						De-Scope 6			De-Scope 2		BLDG_27410_FLR_01_RM_145_RACK_RN1_U17	FOC1951U0QV,FOC1951U0G4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-02	WS-C3560V2-24TS-S	1									4	Bldg_28000_Floor_1_Room_Telco1_Rack_1_	FDO1645Y18M	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-25	WS-C3560V2-24TS-S	1									4	Bldg_28009_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19F	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-30	WS-C3560V2-24TS-S	1									4	Bldg_3015_Floor_0001_Room_0001_Rack_0001	FDO1645Y19U	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-31	WS-C3560V2-24TS-S	1									4	Bldg_3015A_Floor_0001_Room_0001_Rack_0001_	FDO1437X00W	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-55	WS-C3560V2-48TS-S		1								4	Bldg_3017_Floor_1_Room_Telco1_Rack_1_	FDO1738Y2P1	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-52	WS-C3560V2-48TS-S		1								4	Bldg_3019_Floor_0001_Room_Telco1_Rack_0001	FDO1633X19S	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-30	WS-C4506-E				3						4	Bldg_3025_Floor_0001_Rm_Telco1_Rack_0001_	SPE1728024S	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-13	WS-C3560V2-24TS-S	1									4	Bldg_3032_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X3JT	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-24	WS-C3560V2-24TS-S	1									4	Bldg_3045_Floor_0001_Room_0001_Rack_0001	FDO1437X02W	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-22	WS-C3560V2-48TS-S		1								4	Bldg_3049_Floor_0001_Room_#0001_Rack_0001_	FDO1709Y1TR	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-11	WS-C3560V2-24TS-S	1									4	Bldg_3065_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XT	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-44	WS-C3560V2-24TS-S	1									4	Bldg_3076_Floor_0001_Room_0001_Rack_0001_	FDO1437V231	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-36	WS-C3560V2-24TS-S	1									4	Bldg_3077_Floor_0001_Room_0001_Rack_0001_	FDO1645Y1AE	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-37	WS-C4503-E				2						2	Bldg_3077_Floor_0002_Room_LAN1_Rack_0001	FXS1733Q0HG	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-11	WS-C4506-E				3						4	Bldg_3078_Floor_0001_Room_115_Rack_0001_	FXS1732Q0DL	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-08	WS-C3560-48TS-S		1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1431Z0Z2	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-09	WS-C3560-48TS-S		1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1431Z0YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-18	WS-C3560-48TS-S		1								2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FDO1431Z0ZJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-10	WS-C3560V2-24TS-S	1									2	Bldg_3078_Floor_0001_Room_210A_Rack_0001	FDO1438X022	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-06	WS-C3750G-24TS-E1U	1									2	Bldg_3078_Floor_0001_Room_210A_Rack_0001_	FOC1006Z3K2	NCR QUAN Nodes	NCR	QUAN

QUAN-U03-AS-35	WS-C3560V2-48TS-S			1							4	Bldg_3081T_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X19W	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-39	WS-C3560V2-24TS-S	1									4	Bldg_3081T2_Floor_0001_Room_Telco1_Rack_0001_	FDO1643Y2RQ	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-25	WS-C3560V2-48TS-E			1							4	Bldg_3083_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1WT	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-27	WS-C4503-E				2						4	Bldg_3083A_Floor_1_Room_102_Rack_1_	FXS1733Q0HE	NCR QUAN Nodes	NCR	QUAN
QUAN-U06-AS-11	WS-C4506-E										4	Bldg_3086_Floor_0001_Room_COMPRM_Rack_0001_	SPE173000C8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-35	WS-C4506-E										4	Bldg_3087_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3XM	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-19	WS-C3560V2-24TS-S	1									4	Bldg_3088_Floor_01_Room_Telco_01_B-Wing_Rack_01_	FDO1437V0Y5	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-48	WS-C3560V2-24TS-S	1									4	Bldg_3089_Floor_0001_Room_0001_Rack_0001_	FDO1437V0Y3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-04	WS-C3560V2-24TS-S	1									4	Bldg_3090_Floor_1_Room_Telco1_Rack_1_	FDO1645Y19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-20	WS-C4503-E				2						4	Bldg_3094_Floor_0001_Room_Telco1_Rack_0001_	FXS1733Q0J8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-15	WS-C3560V2-48TS-S			1							4	Bldg_3094T_Floor_1_Room_Telco1_Rack_1_	FDO1633X1A9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-45	WS-C3560V2-24TS-S	1									4	Bldg_3095_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V0XF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-03	WS-C4503-E				2						4	Bldg_3097_Floor_0001_Room_Telco1_Rack_0001_	SPE171500L6	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-14	WS-C3560G-24TS-S	1									4	Bldg_3098_Floor_0001_Room_105_BreakFix	FOC1623V0UF	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-44	WS-C4506-E										2	Bldg_3098_Floor_0001_Room_Telco1_Rack_0001_	SPE172801Z0	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-53	WS-C4503-E				2						2	Bldg_3098_Floor_0002_Room_Telco2_Rack_0001_	FXS1735Q2E8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-16	WS-C3560G-24PS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3M8	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-17	WS-C3560G-24PS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1139Y3JW	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-15	WS-C3560G-24TS-E	1									2	Bldg_3098_Floor_1_Room_Server	FOC1431Y4V9	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-01	WS-C3560V2-24TS-S	1									4	Bldg_3099_Floor_01_Room_Telco_01_Rack_01_	FDO1437X02G	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-11	WS-C3560V2-48TS-S			1							4	Bldg_3100_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1AZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-02	WS-C3560V2-24TS-S	1									4	Bldg_3101_Floor_1_Room_Telco1_Rack_1_	FDO1710Y0PC	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-07	WS-C3560V2-24TS-S	1									4	Bldg_3169_Floor_0001_Room_0001_Rack_0001_	FDO1437V0XY	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-05	WS-C4506-E										4	Bldg_3186_Floor_1_Room_NB33_Rack_Telco1_	SPE172801YM	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-02	WS-C3560V2-24TS-S	1									4	Bldg_3202_Floor_1_Room_Telco1_Rack_1_	FDO1437V0XE	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-09	WS-C3560V2-24TS-S	1									4	Bldg_3209_Floor_1_Room_Telco_Rack_1_	FDO1704Y2X4	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-16	WS-C3560V2-48TS-S			1							4	Bldg_3228_Floor_2_Room_Telco_1_Rack_1_	FDO1633X19C	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-50	WS-C4506-E										4	Bldg_3229_Floor_0001_Room_StagingRM_Rack_0004_	FOX1338GWWK	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-16	WS-C3560V2-24TS-S	1									4	Bldg_3230_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V24U	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-35	WS-C3560V2-24TS-S	1									4	Bldg_3232_Floor_1_Room_Telco_1_Rack_0001_	FDO1645Y14W	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-17	WS-C3560V2-24TS-S	1									4	Bldg_3240_Floor_0001_Room_Telco1_Rack_0001_	FDO1437X38R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-39	WS-C4506-E										4	Bldg_3250_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024R	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-38	WS-C4506-E										2	Bldg_3250_Floor_Basement_Room_CommCtr_Rack_0001_	FXS1732Q416	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-54	WS-C4503-E				2						4	Bldg_3250TRAILER_Floor_01_Room_01_Rack_01_	FXS1718Q1BJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-32	WS-C4506-E										4	Bldg_3252_Floor_0001_Room_Telco1_Rack_0001_	SPE1730008T	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-28	WS-C3560V2-24TS-S	1									2	Bldg_3252_Floor_1_Room_Shop51_Rack_1_	FDO1720Y2HA	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-13	WS-C4506-E										4	Bldg_3255_Floor_0001_Room_0001_Rack_0001_	SPE1730008W	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-24	WS-C3560G-24TS-E	1									2	Bldg_3255_Floor_0001_Room_0001_Rack_0003_	FOC1426W0P4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1630HP53	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DS-02	WS-C6506-E											Bldg_3255_Floor_0001_Room_0129_Rack_0005_	SAL1633KRTE	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U03-AS-01	WS-C4506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003_	FOX1332G2VD	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-01	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0010_	SAL17173LBA	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-05	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1633KRT4	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-06	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0041_	SAL1630HP5A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-07	WS-C6509-E							5			2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7H	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-08	WS-C6509-E							5			2	Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0104_	SMG1143NF7S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-02	WS-C6506-E										2	Bldg_3255_Floor_0001_Room_SF_Rack_0010_	SAL172264PL	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-AS-05	WS-C4506-E										2	Bldg_3255_Floor_0002_Room_Telco1_Rack_0001_	FXS1732Q3W3	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-AS-06	WS-C4503-E				2						2	Bldg_3255_Floor_001_Room_ServerRm_Rack_163_	SPE151601B7	NCR QUAN Nodes	NCR	QUAN
QUAN-U99-AS-22	WS-C6506-E										2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1633KRTK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-23	WS-C6506-E										2	Bldg_3255_Floor_1_Room_106_Rack_155_	SAL1630HP58	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-03	WS-C6506-E										2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRTE	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-04	WS-C6506-E										2	Bldg_3255_Floor_1_Room_179_Rack_12_	SAL1633KRT6	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U04-DR-01	WS-C6506-E									1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1633KRTJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U04-DR-02	WS-C6506-E									1	2	Bldg_3255_Floor_1_Room_ServerFarm_Rack_4Row5_	SAL1630HP4Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-07	WS-C3850-48U										2	BLDG_3255_FLR_01_RM_102_RN3_U18	FCW1951COE6,FCW1951DOLB	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U05-AS-18	WS-C4506-E										De-Scope 4	Bldg_3280_Floor_0001_Room_telco1_Rack_0001_	SPE173000D9	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-19	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0001_Room_Telco1_Rack_0001_	SPE173000EC	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-06	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0002_Rm_2East_Rack_0001_	FOX1338HAEJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-03	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0003_Rm_3West_Rack_0001_	FOX1338GWXD	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-07	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0003_Rm_SF_Rack_0001_	FOX1338GZZJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-10	WS-C4503-E										De-Scope 2	Bldg_3280_Floor_0003_Room_SF_Rack_0001_	FXS1735Q2EY	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-04	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0004_Rm_4West_Rack_0001_	FOX1338GZY8	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-05	WS-C4506-E										De-Scope 2	Bldg_3280_Floor_0005_Rm_5West_Rack_0001_	FOX1338GWXZ	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-01	WS-C4503-E															

QUAN-U05-AS-16	WS-C4506-E				De-Scope 3						De-Scope 2	Bldg_3300_Floor_3_Rm_322_Rack_0001_	SPE173000BY	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-90	WS-C3560V2-24TS-S	1										4 Bldg_3313_Floor_01_Room_Teco#_Rack_1_	FDO1437V27K	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_3400_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03J	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-29	WS-C3560V2-24TS-S	1										4 Bldg_3500_Floor_0001_Room_Telco1_Rack_0001_	FDO1438X03R	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-14	WS-C4506-E					3						4 Bldg_5001_Floor_0001_Room_Telco1_Rack_0001_	FXS1732Q3D9	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-13	WS-C4506-E					3						4 Bldg_5002_Floor_0001_Room_Telco1_Rack_0001_	SPE1728024U	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_505_Floor_0001_Room_0002_Rack_0001_	FDO1437V11T	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-54	WS-C4503-E				2							4 Bldg_5170_Floor_1_Rm_Telco1_Rack_0001_	FXS1735Q2DD	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-52	WS-C3560V2-24TS-S	1										4 Bldg_5172_Floor_0001_Room_0001_Rack_0001_	FDO1643Y2R8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-27	WS-C3560V2-24TS-S	1										4 bldg_658_Floor_1_Room_0001_Rack_0001	FDO1437X02B	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-28	WS-C3560V2-24TS-S	1										4 bldg_660_Floor_1_Room_0001_Rack_0001	FDO1437V26X	NCR QUAN Nodes	NCR	QUAN
QUAN-U02-AS-19	WS-C3560V2-24TS-S	1										4 Bldg_69_Floor_0001_Room_Telco1_Rack_0001_	FDO1437V13V	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-28	WS-C3560V2-24TS-S	1										4 Bldg_7_Floor_0001_Room_0001_Rack_0001_	FDO1437X35U	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-30	WS-C3560V2-48TS-E		1									4 Bldg_711A_Floor_0001_Room_Telco1_Rack_0001_	FDO1529X1X6	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-23	WS-C3560V2-24TS-S	1										4 Bldg_711C_Floor_Telco1_Room_0001_Rack_0001_	FDO1645Y198	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-22	WS-C3560V2-24TS-S	1										2 Bldg_711C_Floor_Telco1_Room_COMM_Rack_0001_	FDO1645Y1A8	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-12	WS-C3560V2-48TS-S		1									4 Bldg_715_Floor_0001_Room_Telco1_Rack_0001_	FDO1633X1B1	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-16	WS-C3560V2-24TS-S	1										4 Bldg_B5-9_Floor_0001_Room_0001_Rack_0001_	FDO1437X38P	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-GSAS-01	WS-C3850-48U					3						4 BLDG_GREENSPRINGS_FLR_01_RM_10_RN1_U9	FCW1951F0ND,FOC1951U0G3	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-05	WS-C3560V2-24TS-S	1										4 Bldg_QTRS_C_Floor_Basement_Room_Telco1_Rack_1_	FDO1645Y190	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-AS-55	WS-C3560V2-24TS-S	1										4 Bldg_QTRS1_Floor_BASEMENT_Room_0000_Rack_0001_	FDO1437X035	NCR QUAN Nodes	NCR	QUAN
DR										1		Russel Knox				
DR										1		Russel Knox				
	Total	121	52	50	237	10	6	0	0	18	950					
** Row #374 location needs to be identified prior to placing in-scope for this effort. For now, we'll identify as a "maybe" / Orange until post VSS.																
QUAN-L00-AS-01	WS-C3750G-24TS-E1U												FOC0951Y3XY	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-25	WS-C3750G-24TS-E1U												FOC1224Z19C	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-CB-01	WS-C3750G-48TS-E												FHG1413R0AZ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U09-GSAS-02	WS-C3850-48U												FOC1951U1LV	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-AS-02	ex4200-48t												BP0210344659	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-AS-03	ex8208												CA1710100238	MCEN INS Legacy Nodes	MCEN	INS
QUAN-U99-AS-11a	Nexus 3132QV												FOC2120R35P	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-AS-11b	Nexus 3132QV												FOC2120R1DZ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-01	Nexus9000 C9332PQ												FDO21291CS0	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-DR-02	Nexus9000 C9332PQ												FDO21291CQK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-OS-01	WS-C3750G-48TS-E												FHG1413R0B1	MCEN INS Legacy Nodes	MCEN	INS
QUAN-UDZ-IS-01	WS-C3850-48XS												FOC2035Z1HT	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UDZ-OS-01	WS-C3850-48XS												FOC2035Z1HX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-04	WS-C4500X-32												JAE203400MW	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-DH-01	3745											Bldg_1999_Floor_0001_Rm_0001_Rack_0001_	FTX1012A398	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DH-02	3745											Bldg_1999_Floor_0001_Room_MDF_Rack_0001_	FTX1110A2C0	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-CO-01	CISCO2921/K9											Bldg_2008_Floor_0002_Rm_ServerRoom_Rack_001	FTX1748AJ5X	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-03	888											Bldg_2046_Floor_0001_Rm_Telco1_Rack_0001_	FTX1642856Q	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-19	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201NJ	NCR QUAN Nodes	NCR	QUAN
QUAN-U03-AS-24	Nexus5548											Bldg_2084_Floor_0001_Room_Telco1_Rack_0001_	SSI172201N9	NCR QUAN Nodes	NCR	QUAN
QUAN-U08-DP-12	888											Bldg_2100A_Floor_0001_Room_0001_Rack_0001_	FTX1642854U	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-11	888											Bldg_24101_Floor_0001_Room_Telco1_Rack_0001_	FTX1642855Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-13	888											Bldg_24162_Floor_1_Room_Telco1_Rack_1_	FTX1642856M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-02	3745											Bldg_24203_Floor_0001_Room_Telco1_Rack_0001_	FTX1012A38X	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DH-01	3745											Bldg_24204_Floor_0001_Room_105_Rack_0006	FTX1012A38Z	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-01	888											Bldg_27005_Floor_0001_Room_Telco1_Rack_0001_	FTX1642856J	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-AS-60	WS-C2960-8TC-S								1			Bldg_27028_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G4	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-03	CISCO2911/K9											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX1644AKYW	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-03	SM-ES2-24											Bldg_27054_Floor_0001_Room_0001_Rack_0001_	FTX16403G1P	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-15	888											Bldg_27219_Floor_2_Room_219_Rack_1_	FTX1642854Y	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-DP-02	CISCO2911/K9											Bldg_27263_Floor_0001_Room_0001_Rack_0001_	FTX1652A00M	NCR QUAN Nodes	NCR	QUAN
QUAN-U07-ES-02	SM-ES2-24											Bldg_27263_Floor_0001_Room_Telco1_Rack_001_	FOC16507USN	NCR QUAN Nodes	NCR	QUAN
QUAN-U09-AS-04	CISCO2911/K9											BLDG_27410_FLR_01_RM_182_RN2_U30	FTX1644AKXN	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U08-AS-13	WS-C2960-8TC-S								1			Bldg_3084A_Floor_1_Room_Telco_Rack_1_	FOC1512V375	NCR QUAN Nodes	NCR	QUAN
QUAN-U05-AS-27	WS-C2960-8TC-S								1			Bldg_3085B_Floor_1_Room_Telco1_Rack_1_	FOC1722Z2G0	NCR QUAN Nodes	NCR	QUAN
QUAN-U00-IS-04	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_179_Rack_0002_	FDO1239Z0XQ	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U99-SS-01	WS-C4503-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0002	SPE1447006J	Test Partition Realm_Change	#VALUE!	#VALUE!
QUAN-UB1-CB-01	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003	FOX1229GJFK	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-02	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003	FOX1045051Z	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-01	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003	FGE21252B1A	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IR-02	Nexus9000 C9508 (8 Slot)											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0003-Row-0003	FGE21252B1W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-03	WS-C3560-24TS-S											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FDO1236Y09Q	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-05	WS-C4948											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0004	FOX10450523	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U00-IS-03	WS-C4500X-32											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0016	JAE1943032Y	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-IS-01	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1244GDUX	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-OS-02	WS-C4503											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044	FOX1224GFZ4	MCEN INS QUAN Nodes	MCEN	INS

QUAN-UB1-OS-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0044_	SAL1630HP4W	MCEN INS QUAN Nodes	MCEN	INS
QUAN-UB1-EO-01	WS-C6506-E											Bldg_3255_Floor_0001_Room_ServerFarm_Rack_0112_	SAL13516P34	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U01-BI-01	ASR1002-X											BLDG_3255_RM_179_ROW_4_RACK_1	FOX1938G7PZ	MARFORRES CLJN Nodes	MARFORRES	CLJN
QUAN-UB1-OR-01	CISCO3945-CHASSIS											Building 3255, Room 179, Row 4, Rack 1, RU1	FTX1644AK5S	MCEN INS QUAN Nodes	MCEN	INS
QUAN-U09-AS-08	WS-C3850-12XS												FCW1949F0Z4,FCW1949C17X	MCEN INS QUAN Nodes	MCEN	INS
QUAN-L00-IR-01	ASR1004											MCEN-ES	FOX1352GKYQ	MCEN INS Legacy Nodes	MCEN	INS
QUAN-L00-IS-01	WS-C3750G-48TS-E											MCEN-ES	FHG1413R0BJ	MCEN INS Legacy Nodes	MCEN	INS

OLT QUAN-U03-OL-01			
BLDG	ONT	COUNT	ONT SW
3			
	709GP	1	ONT709GP.3.21.3
72			
	140C	1	ONT140.1.7.34
1775			
	728GP	3	ONT728GP.3.20.7
1999			
	140C	1	ONT140.1.7.34
2044			
	728GP	54	ONT728GP.3.20.7
2076			
	709GP	1	ONT709GP.3.21.3
2118			
	140C	1	ONT140.1.7.34
2200			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
2202			
	709GP	1	ONT709GP.3.21.3
2203			
	709GP	2	ONT709GP.3.21.3
2204			
	709GP	1	ONT709GP.3.21.3
2207			
	709GP	1	ONT709GP.3.21.3
2208			
	709GP	1	ONT709GP.3.21.3
2209			
	709GP	1	ONT709GP.3.21.3
2210			
	709GP	1	ONT709GP.3.21.3
2247			
	709GP	1	ONT709GP.3.21.3
2248			
	709GP	1	ONT709GP.3.21.3
2249			
	709GP	1	ONT709GP.3.21.3
2301			
	728GP	1	ONT728GP.3.20.7
3077			
	728GP	1	ONT728GP.3.20.7
3086			
	709GP	1	ONT709GP.3.21.3
3230			
	709GP	1	ONT709GP.3.21.3
3232			
	709GP	1	ONT709GP.3.21.3
3240			
	140C	1	ONT140.1.7.34
3259			
	709GP	1	ONT709GP.3.21.3
3399			
	709GP	1	ONT709GP.3.21.3
24204			
	709GP	1	ONT709GP.3.21.3
27282			
	709GP	1	ONT709GP.3.21.3
28000			
	709GP	1	ONT709GP.3.21.3
28009			
	709GP	1	ONT709GP.3.21.3

OLT QUAN-U07-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24005			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24006			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24008			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24009			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24015			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24017			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
24018			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24142			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24144			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24157			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24164			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
24180			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24191			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24193			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
24194			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24195			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24196			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24197			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24198			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24199			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24200			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
24204			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130			
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
27282			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27130C			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		38	
TOTAL		31	
TOTAL		7	

OLT QUAN-U08-OL-01			
BLDG	ONT	COUNT	ONT SW
69			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
122			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1304			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
1775			
	729GP	5	ONT729GP.3.20.7;ONT729_V005591
1999			
	140C	1	ONT140.1.7.34
	140W	4	ONT140.1.7.34
	729GP	3	ONT729GP.3.20.7;ONT729_V005591
2033			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2044			
	729GP	17	ONT729GP.3.20.7;ONT729_V005591
2076			
	709GP	1	ONT709GP.3.21.3
2117			
	709GP	1	ONT709GP.3.21.3
2187			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2200			
	709GP	1	ONT709GP.3.21.3
2301			
	729GP	34	ONT729GP.3.20.7;ONT729_V005591
3065			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3070			
	729GP	4	ONT729GP.3.20.7;ONT729_V005591
3186			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3202			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3228			
	709GP	1	ONT709GP.3.21.3
3229			
	728GP	1	ONT728GP.3.20.7
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3230			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3240			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3255			
	709GP	1	ONT709GP.3.21.3
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3259			
	709GP	3	ONT709GP.3.21.3
3280			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3300			
	709GP	1	ONT709GP.3.21.3
3311			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3312			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3313			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
3314			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591

OLT QUAN-U09-OL-01			
BLDG	ONT	COUNT	ONT SW
1999			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26100			
	709GP	1	ONT709GP.3.21.3
26164			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
26183			
	709GP	1	ONT709GP.3.21.3
27170			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
27277			
	729GP	6	ONT729GP.3.20.7;ONT729_V005591
27278			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
27277A			
	709GP	1	ONT709GP.3.21.3
27290TX			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
TOTAL		16	
TOTAL		8	
TOTAL		8	

1//2			
	709GP	1	ONT709GP.3.21.3
2189A			
	709GP	1	ONT709GP.3.21.3
2201A			
	709GP	1	ONT709GP.3.21.3
2203A			
	709GP	1	ONT709GP.3.21.3
3230T			
	709GP	1	ONT709GP.3.21.3
TOTAL		92	
TOTAL		28	
TOTAL		64	

140C	5 4 port
140W	4 4 port
709GP	40 4 port
728GP	60 24 Port
729GP	144 24 Port
	253

Total 24 port switches Needed	De-Scope	146
Total SFP's	De-Scope	584

5001			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5002			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
5003			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
2189A			
	709GP	1	ONT709GP.3.21.3
2189N			
	729GP	2	ONT729GP.3.20.7;ONT729_V005591
3083A			
	729GP	1	ONT729GP.3.20.7;ONT729_V005591
TOTAL		107	
TOTAL		40	
TOTAL		67	

** Red-Highlighed items already have MCEN-N presense within those building arleady and are deemed out-of-scope until VSS.

** All other legacy ONT devices will be replaced with C9300L-24P-4X-A switches

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
INHZ-U00-IR-01	INHZ	Router	Cisco	CISCO2911/K9						Naval Surface Warfare Center Indian Head MD Bldg 290	FTX1644AL07	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IR-04	INHZ	L3Switch	Cisco	WS-C3750G-12S-E						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X2G5	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-IS-01	INHZ	Router	Cisco	SM-ES2-24						Naval Surface Warfare Center Indian Head MD Bldg 290	FOC16403FPC	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U00-OS-03	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Naval Surface Warfare Center Indian Head MD Bldg 290	FDO1436X1Z8	MCEN INS QUAN Nodes	MCEN	INS
INHZ-U01-AS-01	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_521_Floor_1_Rm_Warehouse_Rack_1	FDO1436X243	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-02	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-S			1			4 Bldg_700_Floor_1_Room_RouterRm_Rack_1_	FDO1623X01R	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-03	INHZ	L3Switch	Cisco	WS-C3560V2-48TS-E			1			4 Bldg_2083_Floor_1_Room_storagecloset_Rack_1_	FDO1529X1YG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-04	INHZ	L3Switch	Cisco	WS-C4506-E				3		4 Bldg_901_Floor_1_Room_112_Rack_1_	SPE173000BG	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-05	INHZ	L3Switch	Cisco	WS-C4506-E				3		2 Bldg_901_Floor_1_Room_Mail_Rack_1_	SPE173000CR	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-06	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_290_Floor_1_Rm_MSf_Rack_AccessCab2	FDO1436X2S3	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-07	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_D61_Floor_1_Room_Boiler_Rack_1_	FDO1645Y140	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-AS-08	INHZ	L3Switch	Cisco	WS-C3560V2-24TS-S		1				4 Bldg_870_Floor_1_Room_1_Rack_Wallrack_	FDO1437X03Q	NCR QUAN Nodes	NCR	QUAN
INHZ-U01-DS-01	INHZ	L3Switch	Cisco	WS-C3750G-12S-S					2	Bldg_290_Floor_1_Room_MSf_Rack_8_	FDO1402Y2EK	NCR QUAN Nodes	NCR	QUAN
Total					4		2	6	2	30				

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 3X	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
PKWY-U00-IR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ3	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1423GAQ2	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					MCSC Tech Parkway Stafford VA	FDO1403X0CU	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-IS-04	PKWY	L3Switch	Cisco	WS-C3560V2-24TS-S					MCSC Tech Parkway Stafford VA	FDO1437X3GW	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-01	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSN4	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OR-02	PKWY	L3Switch	Cisco	WS-C6503-E					MCSC Tech Parkway Stafford VA	FOX1612GSNH	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U00-OS-03	PKWY	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_PKWY_Floor_0001_Room_Telco1_Rack_0001	FDO1403X0CP	MCEN INS QUAN Nodes	MCEN	INS
PKWY-U01-AS-01	PKWY	L3Switch	Cisco	WS-C4506-E			3		4 Bldg_105_Floor_0001_Room_0004_Rack_0001_	FOX1415G443	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-02	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_0001_Room_0004_Rack_0001_	SPE152500N1	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-03	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_PG10_Rack_5_	FOX1429G267	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-04	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105_Floor_2_Room_MRAP_Rack_4_	FOX1405G60H	NCR QUAN Nodes	NCR	QUAN
PKWY-U01-AS-05	PKWY	L3Switch	Cisco	WS-C4506-E			3		2 Bldg_105TechPKY_Floor_GCSS_Room_Telco1_Rack_0003_	FOX1428H2JX	NCR QUAN Nodes	NCR	QUAN
Total							15	12					

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	SFP-10G-LR++	Device Location	Serial Number	Asset Tag	Partition	count	company	mitsc
SCPA-U00-IR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGC,FOC12085P69		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U00-OR-01	SCPA	Router	Cisco	3845					MCSC Barrett Heights Stafford VA Bldg 51	FTX1437AJGF,FOC12085P6A		MCEN INS QUAN Nodes	5	MCEN	INS
SCPA-U01-AS-01	SCPA	L3Switch	Cisco	WS-C4506-E			3	4	Bldg_51BH_Floor_0002_Room_Telco1_Rack_0001_	SPE17280251		NCR QUAN Nodes	4	NCR	QUAN
				Total			3	4							

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BAND-U00-IR-01	BAND	Router	Cisco	CISCO2911/K9					Bldg_1_Floor_Basement_Room_Basement_Telco_Rack_1_	FTX1644AKUW	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-IS-01	BAND	Router	Cisco	SM-ES2-24					Bldg_1_Floor_Basement_Room_BasementTelco_Rack_1_	FOC16418358	MCEN INS QUAN Nodes	MCEN	INS
BAND-U00-OR-01	BAND	Router	Cisco	ASR1002-X					Bldg_1_Floor_Basement_Room_Telco Rm_Rack_1_	FOX1829G0ZX	MCEN INS QUAN Nodes	MCEN	INS
BAND-U01-AS-01	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S			De-Scope 1	De-Scope 4	Bldg_1_Floor_Basement_Room_TelcoRm_Rack_1_	FDO1437V253	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-02	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_Floor_1_Room_Lan RM_Rack_1_	FDO1621X11M	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-03	BAND	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_WireCloset_Rack_1_	FDO1623X01P	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-05	BAND	L3Switch	Cisco	WS-C3560X-48T-S		De-Scope 1		De-Scope 2	Bldg_1_Floor_2_Room_Telco Rm_Rack_1_	FDO1913P09U	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-AS-06	BAND	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1			De-Scope 2	Bldg_1_floor_Garage_Room_StorageRm_Rack_1_	FDO1437V25B	HQMC QUAN Nodes	HQMC	QUAN
BAND-U01-DS-01	BAND	L3Switch	Cisco	WS-C3750G-12S-S					Bldg_1_Floor_Basement_Room_TelcoRM_Rack_1_	FDO1408X10T	HQMC QUAN Nodes	HQMC	QUAN

Total0000

** Row 10 (WS-3750G-12S-S) can be taken out of scope since all access switches will connect to row 5 (C9300-48P-A).

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
BRRK-U00-IR-01	BRRK	Router	Cisco	CISCO2921/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AJKD	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IR-02	BRRK	Router	Cisco	CISCO2911/K9							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FTX1644AKRR	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-01	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC16403FY5	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-02	BRRK	Router	Cisco	SM-ES2-24							Bldg_8_Floor_2_Room_Server-Rm_Rack_3_	FOC1641834K	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-IS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_2_	FDO1436X1ZL	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OR-01	BRRK	Router	Cisco	ASR1002-X							Bldg_700_Floor_2_Room_Server_Rack_3_	FOX1830GSKX	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U00-OS-03	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S							Bldg_700_Floor_2_Room_Server_Rack_3_	FDO1436X265	MCEN INS QUAN Nodes	MCEN	INS
BRRK-U01-AS-01	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 4	Bldg_700_Floor_1_Room_S1_Rack_1_	SPE173400CX	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-02	BRRK	L3Switch	Cisco	WS-C4506-E				De-Scope 3		De-Scope 2	Bldg_700_Floor_2_Room_mfd_Rack_1_	SPE173000ET	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-03	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_9_Floor_Basement_Room_LAN Room_Rack_1_	FXS1733Q0TH	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-04	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_20_Floor_Garage_Room_LanRoom_Rack_1_	FXS1735Q2F2	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-05	BRRK	L3Switch	Cisco	WS-C4503-E			De-Scope 2			De-Scope 4	Bldg_21_Floor_1_Room_1_Rack_1_	FXS1733Q0YY	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-06	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS1_Floor_Basement_Room_Comm_Rack_1_	FDO1436X2SJ	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-07	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS2_Floor_Basement_Room_Comm_Rack_1_	FDO1436X26H	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-08	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS3_Floor_Basement_Room_Comm_Rack_1_	FDO1436X1SK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-09	BRRK	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_QTRS4_Floor_Basement_Room_Comm_Rack_1_	FDO1436X3J4	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-AS-10	BRRK	L3Switch	Cisco	WS-C3560V2-48TS-S		De-Scope 1				De-Scope 4	Bldg_CMC_Floor_Basement_Room_CommRm_Rack_1_	FDO1630X009	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-01	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CK	HQMC QUAN Nodes	HQMC	QUAN
BRRK-U01-DS-02	BRRK	L3Switch	Cisco	WS-C3750G-12S-S					De-Scope 1		Bldg_700_Floor_2_Room_MDF_Rack_2_	FDO1403X0CS	HQMC QUAN Nodes	HQMC	QUAN
Total						0	0	0	0	0	0				

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc	
WNYZ-L00-CB-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U							MCEN-ES	FOC1110Z342	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-CB-02	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC0935U0UT	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-CB-03	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-S1U								FOC1030Y47D	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-IR-01	WNYZ	Router	Cisco	ASR1002-X								FOX1830GSKY	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-IS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Z20E	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-OR-01	WNYZ	Router	Cisco	ASR1006								FXS1817Q2D3	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-L00-OS-01	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U								FOC1110Y2BD	MCEN INS QUAN Nodes	MCEN	INS	
WNYZ-U00-IR-01	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FTX1644AKZ6	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IR-02	WNYZ	Router	Cisco	CISCO2911/K9								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FTX1644AL58	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IR-04	WNYZ	L3Switch	Cisco	WS-C3750G-12S-E								Bldg_220_Floor_2_Room_220_Rack_1_	FDO1436X2HF	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IS-01	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FOC17440MJX	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-IS-02	WNYZ	Router	Cisco	SM-ES2-24								Bldg_196_Floor_2_Room_ServerFarm_Row_8_Rack_2_	FOC17440MG6	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U00-OS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S								Bldg_196_Floor_2_Room_ServerFarm_Rack_2/RowA_	FDO1529X1J2	MCEN INS QUAN Nodes	MCEN	INS
WNYZ-U01-AS-03	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_196_Floor_3_Room_302_Rack_1_	FDO1645Y12P	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-04	WNYZ	L3Switch	Cisco	WS-C4506-E	De-Scope 1					De-Scope 4	Bldg_220_Floor_2_Room_220_Rack_1_	FOX1346GVRV	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-05	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S						De-Scope 4	Bldg_211_Floor_1_Room_Telco	FDO1542X352	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-06	WNYZ	L3Switch	Cisco	WS-C3750G-24TS-E1U						De-Scope 4	Bldg_196_Floor_2_Room_243_Rack_16_	FOC1209Z4UT	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-07	WNYZ	L3Switch	Cisco	WS-C4503-E						De-Scope 4	Bldg_169_Floor_1_Room_Storage_Rack_1_	FXS1735Q2E7	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-AS-08	WNYZ	L3Switch	Cisco	WS-C3560V2-24TS-S	De-Scope 1					De-Scope 4	Bldg_Qtrs V_Floor_2_Room_upstair_Rack_1_	FDO1645Y135	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-DS-01	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2EB	HQMC QUAN Nodes	HQMC	QUAN	
WNYZ-U01-DS-02	WNYZ	L3Switch	Cisco	WS-C3750G-12S-S						De-Scope 1	Bldg_196_Floor_2_Room_SF_Row_8_Rack_2_	FDO1402Y2FX	HQMC QUAN Nodes	HQMC	QUAN	
Total					0	0	0	0	0							

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++=	Device Location	Serial Number	Partition	company	mitsc
ANNZ-U00-IR-01	ANNZ	Router	Cisco	CISCO3925-CHASSIS						Bldg_72_Floor_1_Room_140_Rack_1_	FTX1644AHV3	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-IS-01	ANNZ	Router	Cisco	SM-ES2-24						Bldg_72_Floor_1_Room_140_Rack_1_	FOC16403FQA	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U00-OS-03	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S						Bldg_72_Floor_1_Room_143_Rack_1_	FDO1436X26E	MCEN INS QUAN Nodes	MCEN	INS
ANNZ-U01-AS-02	ANNZ	L3Switch	Cisco	WS-C4506-E			3			4 Bldg_351_Floor_1_Room_Admin_Rack_1_	FXS1732Q0DX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-03	ANNZ	L3Switch	Cisco	WS-C3560-48TS-S		1				2 Bldg_351_Floor_2_Room_1_Rack_1_	FDO1431Z0YP	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-04	ANNZ	L3Switch	Cisco	WS-C3560V2-24TS-S	1					2 Bldg_352B_Floor_1_Room_1_Rack_1_	FDO1632X2QY	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-05	ANNZ	L3Switch	Cisco	WS-C3750G-24TS-S	1					2 Bldg_352A_Floor_1_Room_1_Rack_1_	CAT1050RGD2	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-AS-99	ANNZ	Router	Cisco	C891F-K9						Bldg_351_Floor_1_Room_120_Rack_FSRDesk	FJC2034L1RJ	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-BI-01	ANNZ	Router	Cisco	CISCO2921/K9						VERIZON-CIRCUIT-ID (BCBKSDH60001) T-1	FTX1424AHN8	MARFORRES CLJN Nodes	MARFORRES	CLJN
ANNZ-U01-DH-01	ANNZ	Router	Cisco	2811						Bldg_351_Floor_1_Room_109_Rack_1_	FTX1436A0XC	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-DP-02	ANNZ	Router	Cisco	CISCO2911/K9						Bldg_400A_Floor_1_Room_1_Rack_1_	FTX1644AKYX	HQMC QUAN Nodes	HQMC	QUAN
ANNZ-U01-ES-02	ANNZ	Router	Cisco	SM-ES2-24						Bldg_400A_Floor_1_Room_1_Rack_1_	FOC1614709K	HQMC QUAN Nodes	HQMC	QUAN
Total					2	1	3	0	10					

Site	C9300L-24P-4X-A	C9300L-48P-4X-A	C9300-48P-A 2X	C9300-48P-A 3X	C9300-48P-A 5X	C9300-48P-A 6X	C9300-48P-A 7X	4 Port Switch	8 Port Switch	C9500-48Y4C-A	SFP-10G-LR++	Total Ports per Site
QUAN	(b)(4)											
GPON												
INRZ												
PKWY												
SCPA												
BAND												
BRBK												
WNYZ												
ANNZ												
Total	(b)(4)											
C9300L-24P-4X-A	(b)(4)											
C9300L-48P-4X-A												
C9300-48P-A												
Total EUB Switches												
C9300-48P-A With NM-8X												
C9300-48P-A With No NM												
STACK-T1-3M	(b)(4)											
CAB-SPWR-150CM												

(b)(4)

Host Name	Site	Device Type	Device Vendor	Device Model	CS300L-24	CS300L-48	CS300-48P-A-12	CS300-48P-A-32	CS300-48P-A-52	CS300-48P-A-62	CS300-48P-A-72	8 Port	CS500-48Y4C-A	SFP-10G-SR++	Device Location	Serial Number	Partition	Company	Mitac
(b)(4)																			

(b)(4)

				Total															

(b)(4)

(b)(4)

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)														

Total	
-------	--

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 3X	SFP-10G-LR+==	Device Location	Serial Number	Partition	company	misc
(b)(4)													

Total	
-------	--

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X SFP-10G-LR++	Device Location	Serial Number	Asset Tag	Partition	count	company	misc
(b)(4)														
					Total									

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A	SFP-10G-LR+==	Device Location	Serial Number	Partition	company	misc
(b)(4)													
Total													

Host Name	site	Device Type	Device Vendor	Device Model	24 Port	48 Port	C9300-48P-A 2X	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)															

Total	
-------	--

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A-2X	C9300-48P-A-3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	misc
(b)(4)															
Total															

Host Name	site	Device Type	Device Vendor	Device Model	C9300L-24	C9300L-48	C9300-48P-A 3X	C9500-48Y4C-A	SFP-10G-LR++	Device Location	Serial Number	Partition	company	mitsc
(b)(4)														

Total	
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PERFORMANCE SPECIFICATION FOR MARINE CORPS BASE QUANTICO QUANTICO, VIRGINIA

30 Nov 2021



Prepared By:

**UNITED STATES MARINE CORPS
Program Executive Office Digital and Enterprise Services
Portfolio, Infrastructure Services
Infrastructure Services, Transport and Communications (ISTC) Team**

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1 GENERAL

This is a Firm-Fixed-Price (FFP) Contract, for the Infrastructure Services, Transport and Communications (ISTC) program office to modernize the enterprise communications infrastructure aboard Marine Corps Base (MCB) Quantico, VA.

The services included in this FFP contract will be non-personal services. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the contractor who, in turn is responsible to the Government. The Government will describe the specific performance requirements at the task and delivery order level, but all work performed will fall within the general scope described herein.

1.1 DESCRIPTION OF SERVICES / INTRODUCTION

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform modernization and sustainment services as defined in this Performance Specification except for those items specified as Government Furnished Property (GFP) and services. The contractor shall perform to the standards articulated in this contract.

1.2 BACKGROUND

Traditionally, Marine Corps Systems Command (MCSC), ISTC Program Office (previously known as the Base Telecommunications Infrastructure) has been responsible for the upgrade and expansion of the Marine Corps' legacy Time Division Multiplexing (TDM) voice systems, Synchronous Optical Network (SONET), and outside plant (OSP) cable infrastructure. These previous efforts were typically executed via individual FFP Contracts. Due to advancing technologies and increased requirements, the BTI mission expanded to include the complete modernization/replacement of all Low Speed Time Division Multiplexing (LSTDM) technologies. More recently, the ITSC mission has expanded to include the modernization of the Distribution and Access Layer Transport infrastructure to the End-User Building (EUB). As a result, ISTC is now responsible for the modernization and sustainment of the Base Area Network (BAN)/Local Area Network (LAN) and the Unified Communications (UC) at every Marine Corps Installation (MCI).

1.3 OBJECTIVES

The objective of this initiative is the complete modernization of the Base Telecommunications Infrastructure (BTI) aboard MCB Quantico in accordance with (IAW) the Marine Corps Wide Area Network (WAN) Transport Implementation Plan that aligns with the normalization of the Joint Information Environment (JIE). This will be realized through the enterprise-wide deployment of homogeneous systems and subsystems in order to minimize operation demands on Installation personnel and simplify sustainment activities for the ITSC Program Office. This modernization effort shall include the BAN Transport and Unified Communications aboard MCB Quantico that will support the details in Sections 5.1 and 8.2 of this PWS. The overall intent of this PWS is to establish a standardized enterprise solution with the flexibility for a System Integrator (SI) to support sustainment activities that includes technical refresh and unforeseen systems upgrades to hardware, software, and ancillary equipment.

1.4 SCOPE

This PWS establishes and defines the requirements for the contractor to Engineer, Furnish, Install, Secure, Test (EFIST) and make operational a turnkey BAN Transport and Enterprise UC Voice solution for the modernization of the existing communication infrastructure at MCB Quantico – or other USMC facilities as defined by the Government – to include enterprise integration and convergence. The contractor shall also provide all ancillary equipment, labor, training, software, firmware, licenses, grounding, and interfaces associated with these systems to deliver a complete turnkey solution. The contractor shall provide all supporting documentation associated with the delivered solution.

1.5 ORDERING PERIOD / PERIOD OF PERFORMANCE

The delivery for this modernization effort will be 18 months after contract award.

1.6 GENERAL INFORMATION

1.6.1 RECOGNIZED HOLIDAYS

The contractor is not required to perform work or services on the Federal Government holidays identified below.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Juneteenth	Christmas Day
Independence Day	

1.6.2 HOURS OF OPERATION

The contractor shall provide services IAW Marine Corps Systems Command Order 5530.2, working hours for on-site contractors shall be within 0630-1800 local time. All work shall typically be performed within the Government-defined core hours. There may be a need for occasional work outside of normal Government-defined core hours. No overtime will be authorized.

1.6.3 PLACE OF PERFORMANCE

The work to be performed under this FFP Contract will be performed at MCB Quantico in Quantico, VA.

1.6.4 TYPE OF CONTRACT

The Government will award a FFP Contract issued for specific work at MCB Quantico.

1.6.5 PHYSICAL SECURITY

The contractor shall be responsible for safeguarding all Government equipment, information and property provided for contractor use. At the close of each work period, Government facilities, equipment, and materials shall be secured.

1.6.6 SECURITY REQUIREMENTS

The information provided to the contractor will be unclassified and/or Controlled Unclassified Information (CUI). Certain contractors will be required to perform IT-I/II duties that require favorably adjudicated Tier 5/3 Level investigations. The Defense Counterintelligence Security Agency (DCSA) will not authorize contractors to submit the necessary Tier Level investigations, solely in support of IT level designation requirements, without a valid classified requirement as specified in a DD-254. This effort does not warrant a DD-254, therefore the Government Contracting Activity Security Office (GCASO) is required to submit any required investigations in support of IT level designations. The contractor is required to provide a roster of prospective contractor employees performing IT Level II and/or IT Level I duties to the MCSC Contracting Officer's Representative (COR). This roster shall include: full names, Social Security Numbers, IT Level required, e-mail address, and phone number for each contractor requiring investigations in support of IT Level designations. The COR will verify the IT Level requirements and forward the roster to the GCASO. Contractors found to be lacking required investigations will be contacted by the GCASO.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) via encrypted e-mail to MCSC_Security@usmc.mil or 703-432-3374/3952 if any contractor performing on this contract receives an unfavorable adjudication. The FSO must also notify the PERSEC Office, within 24 hours, of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor performing on this contract, if they have been granted an IT designation, issued a CAC and/or a MCSC Building Badge. The FSO shall notify the Government (written notice) within 24 hours of any contractor personnel added or removed from the contract that have been granted IT designations, issued a Common Access Card (CAC) and/or a MCSC Building badge/access.

1.6.6.1 DEFENSE BIOMETRIC IDENTIFICATION CARD

Certain contractors may require the issuance of a Defense Biometric Identification (DBID) card in order to gain access to MCB Quantico. The Contracting Officer Representative (COR) will identify and approve only those contractor personnel performing on this contract that require a DBID card in order to perform their job function aboard the base.

1.6.6.2 VENDOR SCREENING

The contractor shall return a completed Contractor Screening Form, which will be provided as Attachment (5) to the SF1449, in order to identify all contractor personnel requiring access to Installations/Detachments, base facilities, and/or handling Government assets. This form includes personal identification information for respective contractor personnel and shall be either: hand delivered to the Installation Technical Support Officer (TSO) or sent in a password protected document. If the vendor screening form is sent via e-mail, the password shall be provided and sent in a separate email. The contractor shall provide a completed form to the TSO no later than two (2) weeks prior to the start of work for processing and vetting by the Installation/Detachment Security Office. The Security Office will respond with any favorable or unfavorable screening outcomes as they are received from the Installation Provost Marshall's Office (PMO). Any personnel receiving an unfavorable outcome will not be authorized access to the Installation for the purpose of performing work related to this contract.

All required escorts shall be provided by Base, G/S-6 staff. It is the contractor's responsibility to secure any facility upon exiting the facility for which they are provided a key and unescorted access. The Base, G/S-6 will exercise security supervision over all contractor personnel working on this project and will provide security support to the contractor. The contractor shall comply with all emergency rules and procedures established for this Base. All personnel aboard the Base are subject to random inspections of their vehicles, personal items, and of themselves. Consent to these inspections is considered to have been given upon entrance to the base and its facilities. Photography, videotaping, and/or audio recordings aboard the base are strictly prohibited without proper authorization by the local Base authorities.

1.6.6.3 COMMON ACCESS CARD

The COR will identify and only approve those contractor employees performing on this contract that require CACs in order to perform their job function. In accordance with Headquarters, United States Marine Corps issued guidance relative to Homeland Security Presidential Directive – 12 (HSPD-12), all personnel must meet eligibility criteria to be issued a CAC. In order to meet the eligibility criteria, contractor employees requiring a CAC must obtain and maintain a favorably adjudicated Personnel Security Investigation (PSI). Prior to authorizing a CAC, the employee's Joint Personnel Adjudication System (JPAS) record must indicate a completed and favorably adjudicated PSI or (at a minimum) that a PSI has been submitted and accepted (opened). The minimum acceptable investigation is a T-1 or a National Agency Check with Written Inquiries (NACI). If a contractor employee's open investigation closes and is not favorably adjudicated, the CAC must be immediately retrieved and revoked. CACs are not issued for convenience.

Facility Security Officers (FSOs) are responsible for notifying the MCSC AC/S G-2 Personnel Security Office (PERSEC Office) at 703-432-3490/3952 if any contractor performing on this contract receives an unfavorable adjudication after being issued a CAC. The FSO must also immediately notify the PERSEC Office of any adverse/derogatory information associated with the 13 Adjudicative Guidelines concerning any contractor issued a CAC, regardless of whether a JPAS Incident Report is submitted.

Each CAC is issued with a "ctr@usmc.mil" e-mail account that the individual contractor is responsible to keep active by logging in on a regular basis (at least twice a month), sending an e-mail and clearing any unneeded e-mails. Contractors issued a CAC are prohibited from "auto-forwarding" e-mail from their .mil e-mail account to their .com e-mail account. If the "ctr@usmc.mil" e-mail account is not kept active, G-6 will deactivate the account and the CAC will also lose its functionality. Contractor employees shall solely use their government furnished "ctr@usmc.mil" e-mail accounts for work supporting the USMC, conducted in fulfillment of this contract, and shall not use a contractor supplied or personal e-mail account to conduct FOUO government business. The use of a contractor or personal e-mail account for contractor business or personal use is allowed, but only when using cellular or a commercial internet service provider.

If a contractor loses their eligibility for a CAC due to an adverse adjudicative decision, they have also lost their eligibility to perform on MCSC contracts.

1.6.6.4 MARINE CORPS ENTERPRISE NETWORK COMPUTER ACCESS

Contractor personnel accessing Marine Corps Systems Command Computer systems must maintain compliance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access

Guide. Contractor personnel will submit a DD Form 2875, Systems Authorization Access Request (SAAR), and completion certificates for the CYBERC course located on MarineNet at <https://www.marinenet.usmc.mil>. The CYBERC course consists of the DoD Cyber Awareness Challenge and Department of the Navy Annual Privacy Training on Personally Identifiable Information (PII). Contractors will have to create a MarineNet account in order to acquire the required training.

Marine Corps Enterprise Network (MCEN) Information Technology (IT) resources if provided are designated For Official Use Only (FOUO) and other limited authorized purposes. DoD military, civilian personnel, consultants, and contractor personnel performing duties on MCEN information systems may be assigned to one of three position sensitivity designations.

1. ADP-I (IT-1): Favorably adjudicated T-5, T5R, (formerly known as Single Scope Background Investigation (SSBI)/SSBI Periodic Reinvestigation (SBPR)/SSBI Phased Periodic Reinvestigation (PPR))
2. ADP-II (IT-2): Favorably adjudicated T-3, T3R, (formerly known as Access National Agency Check and Inquiries (ANACI)/ National Agency Check with Law and Credit (NACLC)/Secret Periodic Review (S-PR))
3. ADP-III (IT-3): Completed T-1, (formerly known as National Agency Check with Inquiries (NACI))

All privileged users (IT-1) must undergo a T-5 investigation regardless of the security clearance level required for the position. Privileged users must maintain the baseline Cyberspace Workforce Cybersecurity Technical (CST) or Cybersecurity Manager (CSM) relating to the position being filled. Privileged users are defined as anyone who has privileges over a standard user account as in system administrators, developers, network administrators, code signing specialist and Service Desk technicians.

All MCEN users must read, understand, and comply with policy and guidance to protect classified information and Controlled Unclassified Information (CUI), and to prevent unauthorized disclosures in accordance with United States Marine Corps Enterprise Cybersecurity Manual 007 Resource Access Guide and CJCSI 6510.01F.

MCEN Official E-mail Usage - MCEN IT resources are provided FOUO and other limited authorized purposes. Authorized purposes may include personal use within limitations as defined by the supervisor or the local command. Auto forwarding of e-mail from a MCEN Non-classified Internet Protocol Network MCEN-N) to commercial or private domains (e.g., Hotmail, Yahoo, Gmail, etc.) is strictly prohibited. E-mail messages requiring either message integrity or non-repudiation are digitally signed using DoD Public Key Infrastructure (PKI). All e-mail containing an attachment or embedded active content must be digitally signed.

MCEN users will follow specific guidelines to safeguard CUI, including PII and FOUO. Non-official e-mail is not authorized for and will not be used to transmit CUI to include PII and Health Insurance Portability and Accountability Act (HIPAA) information. Non-official e-mail is not authorized for official use unless under specific situations where it is the only mean for communication available to meet operational requirements. This can occur when the official MCEN provided e-mail is not available but must be approved prior to use by the Marine Corps Authorizing Official (AO).

All personnel will use DoD authorized PKI certificates to encrypt e-mail messages if they contain any of the following:

1. Information that is categorized as FOUO or Sensitive but Unclassified (SBU).
2. Any contract sensitive information that normally would not be disclosed to anyone other than the intended recipient.
3. Any privacy data, PII, or information that is intended for inclusion in an employee's personal file or any information that would fall under the tenets of MSGID: DOC/5 USC 552A. Personal or commercial e-mail accounts are not authorized to transmit unencrypted CUI or PII.
4. Any medical or health data, to include medical status or diagnosis concerning another individual.
5. Any operational data regarding status, readiness, location, or deployment of forces or equipment.

1.6.6.5 KEY CONTROL

The contractor shall establish and implement methods of making sure all keys/key cards issued to the contractor by the Government are not lost or misplaced and are not used by unauthorized persons.

NOTE: All references to keys include key cards.

No keys issued to the contractor by the Government shall be duplicated. The contractor shall develop procedures covering key control that shall be included in the Quality Control Plan. Such procedures shall include turn-in of any issued keys by personnel who no longer require access to locked areas. The contractor shall immediately report any occurrences of lost or duplicate keys/key cards to the Contracting Officer.

In the event keys, other than master keys, are lost or duplicated, the contractor shall, upon direction of the Contracting Officer, re-key or replace the affected lock or locks; however, the Government, at its option, may replace the affected lock or locks or perform re-keying. When the replacement of locks or re-keying is performed by the Government, the total cost of re-keying or the replacement of the lock or locks shall be deducted from the next payment due the contractor. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced by the Government and the total cost deducted from the next payment due the contractor.

The contractor shall prohibit the use of Government issued keys/key cards by any persons other than the contractor's employees. The contractor shall prohibit the opening of locked areas by contractor employees to permit entrance of persons other than contractor employees engaged in the performance of assigned work in those areas, or personnel authorized entrance by the Contracting Officer.

1.6.6.6 LOCK COMBINATIONS

The contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. The contractor shall ensure that lock combinations are changed when personnel having access to the combinations no longer have a need to know such combinations. These procedures shall be included in the contractor's Quality Control Plan.

1.6.7 POST AWARD CONFERENCE/PERIODIC MEETINGS

The contractor agrees to attend any post award conference convened by the contracting activity in accordance with Federal Acquisition Regulation Subpart 42.5. The Contracting Officer, Contracting Officer's Representative (COR), and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the Contracting Officer will apprise the contractor of how the Government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.6.8 CONTRACTING OFFICER'S REPRESENTATIVE

The COR(s) will be identified by separate letter(s) and monitors all technical aspects of the FFP Contract, task and delivery orders, and assists in contract administration. The COR(s) is authorized to perform the following functions: assure that the contractor performs the technical requirements of the contract; perform inspections necessary in connection with contract performance; maintain written and oral communications with the contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor contractor's performance and notify both the Contracting Officer and contractor of any deficiencies; coordinate availability of GFP; and provide site entry of contractor personnel. A letter of designation issued to the COR(s), a copy of which is sent to the contractor, states the responsibilities and limitations of the COR(s), especially regarding changes in price estimates or changes in delivery dates or periods of performance. The COR(s) is/are not authorized to change any of the terms and conditions of the resulting order, especially any terms that affect price, delivery schedule, or period of performance.

1.6.9 KEY PERSONNEL

The contractor shall provide a Project Manager who shall be responsible for the performance of the work. The name of this person and an alternate who shall act for the contractor when the manager is absent shall be designated in writing to the Contracting Officer. The Project Manager or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract.

The Project Manager or alternate shall be available between 8:00 AM to 4:30 PM, Monday thru Friday based on the time zone of the location/Installation except Federal holidays or when the Government facility is closed for administrative reasons.

Qualifications for all key personnel are listed in [Table 1](#).

Table 1 – Key Personnel*

KEY PERSONNEL	CERTIFICATIONS	EXPERIENCE	SKILL	PROJECT SEQUEMENT
Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and organizational skills	Implementation
On-Site Project Manager	Certified PMP or equivalent experience	7 Years Project Management	Proven leadership, management, and supervisory skills	Implementation
Quality Control/Quality Assurance Manager	BICSI Installer Certified	7 Years QC/QA Management	Proven telecommunications quality management skills	Implementation
Lead Systems Engineer (LSE)	BS Science/Engineering	10 Years Engineering Discipline	Licensed Professional Engineer (PE)	Implementation
Network/Telecommunications Engineer	Registered Communications Distribution Design (RCDD)	10 Years Network/Telecommunications	Proven telecommunications design and installation skills	Implementation
Logistician	Certified Professional Logistician	5 Years Logistics Management	Proven leadership, management, and organizational skills	Sustainment

* For the Quality Control/Quality Assurance Manager, the Contractor may swap 5 years of relevant QC/QA experience for the BICSI certification.

* For the Logistician, the Contractor may swap 5 years of logistics experience for the Certified Professional Logistician certification

1.6.10 IDENTIFICATION OF CONTRACTOR EMPLOYEES

All contract personnel attending meetings, answering Government telephones, and working in any situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed. Contractors shall obtain visitor badges in accordance with MCB Quantico security policy.

1.6.11 CONTRACTOR TRAVEL

The contractor may be required to travel to off-site training locations and to ship training aids to these locations in support of this PWS. Contractor may be authorized travel expenses consistent with the substantive provisions of the Federal Acquisition Regulation 31.205-46 and the limitation of funds specified in each task and delivery order. All travel requires prior Government approval/authorization by the COR(s).

1.6.12 ORGANIZATION CONFLICT OF INTEREST

To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the contractor shall protect the data from unauthorized use and disclosure and agrees not to use it to compete with those other companies.

1. “Organizational Conflict of Interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the government, or the person’s objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. “Person” as used herein includes corporations, partnerships, joint ventures, and other business enterprises.

2. The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in the contract, the contractor does not have any organizational conflict of interest(s) as defined in paragraph (1).
3. It is recognized that the effort to be performed by the contractor under this contract may create a potential organizational conflict of interest on the instant contract or on a future acquisition. In order to avoid potential conflict of interest, and at the same time to avoid prejudicing the best interest of the government, the right of the contractor to participate in future procurement of equipment and/or services that are the subject of any work under this contract shall be limited as described below in accordance with the requirements of FAR Subpart 9.5.
4. The contractor agrees:
 - a) That it shall not release, disclose, or use in any way that would permit or result in disclosure to any party outside the government any information provided to the contractor by the government during or as a result of performance of this contract. Such information includes, but is not limited to, information submitted to the government on confidential basis by other persons. Further, the prohibition against release of government provided information extends to cover such information whether or not in its original form, e.g., where the information has been included in contractor generated work or where it is discernible from materials incorporating or based upon such information. This prohibition shall not expire after a given period of time. See, DFARS 252.204-7000, Disclosure of Information, included in the contract.
 - b) The contractor agrees that it shall not release, disclose, or use in any way that would permit or result in disclosure or any party outside the government any information generated or derived during or as a result of performance of this contract.
 - c) The prohibitions contained in subparagraphs (4)(a) and (4)(b) shall apply with equal force to any affiliate of the contractor, any subcontractor, consultant, or employee of the contractor, any joint venture involving the contractor, any entity into or with which it may merge or affiliate, or any successor or assign of the contractor. The terms of paragraph (f) of the Special contractor Requirement relating to notification shall apply to any release of information in contravention of this paragraph (4).
5. The contractor further agrees that during the performance of this contract and for a period of three years after completion of performance of this contract, the contractor; any affiliate of the contractor; any subcontractor, consultant, or employee of the contractor; any joint venture involving the contractor; any entity into or with which it may subsequently merge or affiliate; or any other successor or assign of the contractor, shall not furnish to the Marine Corps, either as a prime contractor or as a subcontractor, or as a consultant to a prime contractor or as a subcontractor, any system, component or services which is the subject of the work to be performed under this contract. This exclusion does not apply to any re-competition for those systems, components, or services on the basis of work statements growing out of the effort performed under this contract, developed from a source other than the contractor, subcontractor affiliate, or assign of either. During the course of performance of this contract or before the three-year period following completion of this contract has lapsed, the contractor may, with the authorization of the cognizant contracting officer, participate in a subsequent procurement for the same system, component, or service. In other words, the contractor may be authorized to

compete for procurement(s) for systems, components or services subsequent to an intervening procurement.

6. The contractor agrees that, if after award, it discovers an actual or potential organizational conflict of interest; it shall make immediate and full disclosure in writing to the contracting officer. The notification shall include a description of the actual or potential organizational conflict of interest, a description of the action, which the contractor has taken or proposes to take to avoid, mitigate, or neutralize the conflict, and any other relevant information that would assist the contracting officer in making a determination on this matter. Notwithstanding this notification, the government may terminate the contract for the convenience of the government if determined to be in the best interest of the government.
7. Notwithstanding paragraph (6) above, if the contractor was aware, or should have been aware, of an organizational conflict of interest prior to the award of this contract or becomes, or should become aware of an organizational conflict of interest after award of this contract and does not make an immediate and full disclosure in writing to the contracting officer, the government may terminate this contract for default.
8. If the contractor takes any action prohibited by this requirement or fails to take action required by this requirement, the government may terminate this contract by default.
9. The contracting officer's decision as to the existence or nonexistence of the actual or potential organization conflict of interest shall be final and is not subject to the clause of this contract entitled "DISPUTES" (FAR 52.233.1).
10. Nothing in this requirement is intended to prohibit or preclude the contractor from marketing or selling to the United States Government its product lines in existence on the effective date of this contract; nor, shall this requirement preclude the contractor from participating in any research and development. Additionally, sale of catalog or standard commercial items are exempt from this requirement.
11. The contractor shall promptly notify the contracting officer, in writing, if it has been tasked to evaluate or advise the government concerning its own products or activities or those of a competitor in order to ensure proper safeguards exist to guarantee objectivity and to protect the government's interest.
12. The contractor shall include this requirement in subcontracts of any tier which involve access to information or situations/conditions covered by the preceding paragraphs, substituting "subcontractor" for "contractor" where appropriate.
13. The rights and remedies described herein shall not be exclusive and are in addition to other rights and remedies provided by law or elsewhere included in this contract. 5.4. Proprietary Information Exchange Agreement (PIEA)/Non-Disclosure Agreements (NDA). The contractor shall arrange the signature on all PIEA/non-disclosure agreements necessary to interface with other contractors to accomplish the contract requirements in accordance with FAR 9.505-4 prior to beginning any efforts associated with this PWS. Copies of all non-disclosure agreements required for this contract shall be provided to the Contracting Officer and COR.

1.6.13 SYSTEM SECURITY PLAN

1. System Security Plan and Plans of Action and Milestones (SSP/POAM) Reviews

a) Within thirty (30) days of contract award, the Contractor shall make its System Security Plan(s) (SSP(s)) for its covered contractor information system(s) available for review by the Government at the contractor's facility. The SSP(s) shall implement the security requirements in Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.204-7012, which is included in this contract. The Contractor shall fully cooperate in the Government's review of the SSPs at the Contractor's facility.

b) If the Government determines that the SSP(s) does not adequately implement the requirements of DFARS clause 252.204-7012 then the Government shall notify the Contractor of each identified deficiency. The Contractor shall correct any identified deficiencies within thirty (30) days of notification by the Government. The contracting officer may provide for a correction period longer than thirty (30) days and, in such a case, may require the Contractor to submit a plan of action and milestones (POAM) for the correction of the identified deficiencies. The Contractor shall immediately notify the contracting officer of any failure or anticipated failure to meet a milestone in such a POAM.

c) Upon the conclusion of the correction period, the Government may conduct a follow-on review of the SSP(s) at the Contractor's facilities. The Government may continue to conduct follow-on reviews until the Government determines that the Contractor has corrected all identified deficiencies in the SSP(s).

d) The Government may, in its sole discretion, conduct subsequent reviews at the Contractor's site to verify the information in the SSP(s). The Government will conduct such reviews at least every three (3) years (measured from the date of contract award) and may conduct such reviews at any time upon thirty (30) days' notice to the Contractor.

2. Compliance to NIST 800-171

a) The Contractor shall fully implement the CUI Security Requirements (Requirements) and associated Relevant Security Controls (Controls) in NIST Special Publication 800-171 (Rev. 1) (NIST SP 800-171), or establish a SSP(s) and POA&Ms that varies from NIST 800-171 only in accordance with DFARS clause 252.204-7012(b)(2), for all covered contractor information systems affecting this contract.

b) Notwithstanding the allowance for such variation, the contractor shall identify in any SSP and POA&M their plans to implement the following, at a minimum:

(1) Implement Control 3.5.3 (Multi-factor authentication). This means that multi-factor authentication is required for all users, privileged and unprivileged accounts that log into a network. In other words, any system that is not standalone should be required to utilize acceptable multi-factor authentication. For legacy systems and systems that cannot support this requirement, such as CNC

equipment, etc., a combination of physical and logical protections acceptable to the Government may be substituted;

(2) Implement Control 3.1.5 (least privilege) and associated Controls, and identify practices that the contractor implements to restrict the unnecessary sharing with, or flow of, covered defense information to its subcontractors, suppliers, or vendors based on need-to-know principles;

(3) Implement Control 3.1.12 (monitoring and control remote access sessions) - Require monitoring and controlling of remote access sessions and include mechanisms to audit the sessions and methods.

(4) Audit user privileges on at least an annual basis;

(5) Implement:

i. Control 3.13.11 (FIPS 140-2 validated cryptology or implementation of NSA or NIST approved algorithms (i.e. FIPS 140-2 Annex A: AES or Triple DES) or compensating controls as documented in a SSP and POAM); and,

ii. NIST Cryptographic Algorithm Validation Program (CAVP) (see <https://csrc.nist.gov/projects/cryptographic-algorithm-validation-program>);

(6) Implement Control 3.13.16 (Protect the confidentiality of CUI at rest) or provide a POAM for implementation which shall be evaluated by the Navy for risk acceptance.

(7) Implement Control 3.1.19 (encrypt CUI on mobile devices) or provide a plan of action for implementation which can be evaluated by the Government Program Manager for risk to the program.

3. Cyber Incident Response:

a) The Contractor shall, within fifteen (15) days of discovering the cyber incident (inclusive of the 72-hour reporting period), deliver all data used in performance of the contract that the Contractor determines is impacted by the incident and begin assessment of potential warfighter/program impact.

b) Incident data shall be delivered in accordance with the Department of Defense Cyber Crimes Center (DC3) Instructions for Submitting Media available at http://www.acq.osd.mil/dpap/dars/pgi/docs/Instructions_for_Submitting_Me.... In delivery of the incident data, the Contractor shall, to the extent practical, remove contractor-owned information from Government covered defense information.

c) If the Contractor subsequently identifies any such data not previously delivered to DC3, then the Contractor shall immediately notify the contracting officer in writing and shall deliver the incident data within ten (10) days of identification. In such a case, the Contractor may request a delivery date later than ten (10) days after identification. The contracting officer will approve or disapprove the request after coordination with DC3.

4. Naval Criminal Investigative Service (NCIS) Outreach

The Contractor shall engage with NCIS industry outreach efforts and consider recommendations for hardening of covered contractor information systems affecting DON programs and technologies.

5. NCIS/Industry Monitoring

a) In the event of a cyber incident or at any time the Government has indication of a vulnerability or potential vulnerability, the Contractor shall cooperate with the Naval Criminal Investigative Service (NCIS), which may include cooperation related to: threat indicators; pre-determined incident information derived from the Contractor's infrastructure systems; and the continuous provision of all Contractor, subcontractor or vendor logs that show network activity, including any additional logs the contractor, subcontractor or vendor agrees to initiate as a result of the cyber incident or notice of actual or potential vulnerability.

b) If the Government determines that the collection of all logs does not adequately protect its interests, the Contractor and NCIS will work together to implement additional measures, which may include allowing the installation of an appropriate network device that is owned and maintained by NCIS, on the Contractor's information systems or information technology assets. The specific details (e.g., type of device, type of data gathered, monitoring period) regarding the installation of an NCIS network device shall be the subject of a separate agreement negotiated between NCIS and the Contractor. In the alternative, the Contractor may install network sensor capabilities or a network monitoring service, either of which must be reviewed for acceptability by NCIS. Use of this alternative approach shall also be the subject of a separate agreement negotiated between NCIS and the Contractor.

c) In all cases, the collection or provision of data and any activities associated with this statement of work shall be in accordance with federal, state, and non-US law.

2 DEFINITIONS AND ACRONYMS

2.1 DEFINITIONS

BACKBONE TRANSPORT. The communications infrastructure, outside plant cable and electronic equipment, that provides both the physical and logical connection between communications (core and distribution) nodes.

DEFECTIVE SERVICE. A service output that does not meet the standard of performance described within the Performance Specification.

DELIVERABLE. Anything that can be physically delivered but may include non-manufactured things such as meeting minutes or reports.

KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract. Key Personnel are listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal.

LONG LEAD ITEMS. Long lead Items are defined as those items that take sixty (60) or more calendar days to procure/receive due to complex design, complicated manufacturing process, and/or limited production capacity.

LOCAL TIME. Time at reckoned in a particular region or time zone.

PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

2.2 ACRONYMS

Acronym	Term
A&A	Assessment and Authorization
AC	Alternating Current
ACD	Automatic Call Distribution
ACAS	Assured Compliance Assessment Solutions
AHJ	Authority Having Jurisdiction
ANACI	Access National Agency Check and Inquiries
AO	Authorizing Official
APL	Approved Product List
AS	Assured Services
ASR	Asset Shipping Report
ATC	Authorization to Connect
ATO	Authorization to Operate
ATS	Automatic Transfer Switch
AWG	American Wire Gauge
B/P/C/S	Base/Post/Camps/Stations
BAN	Base Area Network
BET	Building Entrance Terminal
BoL	Bill of Lading
BOM	Bill of Materials

Acronym	Term
BTI	Base Telephone Infrastructure
CAC	Common Access Card
CAT I	Category I
CAT II	Category II
CAT III	Category III
CCB	Configuration Control Board
CEC	Continuing Education Credits
CEDC	Component Enterprise Data Center
CFR	Code of Federal Regulations
CI	Configuration Item
CLIN	Contract Line Item Number
CM	Configuration Management
CMDB	Configuration Management Database
CMP	Configuration Management Plan
CN	Core Node
CND	Computer Network Defense
CONOPS	Concept of Operations
CONUS	Continental United States (excludes Alaska and Hawaii)
COPP	Certified Output Protection Protocol
COR	Contracting Officer Representative
CoS	Class of Service
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-the-Shelf
CPD	Capability Production Document
CRM	Comments Resolution Matrix
CS	Cyber Security
CSM	Cyber Security Manager
CSSA	Customer Service Support Application
CST	Cyber Security Technical
CUI	Controlled Unclassified Information
CWDM	Coarse Wavelength Division Multiplexing
DBID	Defense Biometric Identification
DC	Direct Current
DD1149	Requisition and Invoice Shipping Document (Form DD1149)
DD250	Department of Defense Form 250 (Receiving Report)
DD254	Department of Defense Contract Security Requirement List
DEA	Drug Enforcement Administration
DFARS	Defense Federal Acquisition Regulation Supplement
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DLA-DS	Defense Logistics Agency - Disposition Services
DN	Distribution Node
DoD	Department of Defense
DoDIN	DoD Information Network

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Acronym	Term
DoN	Department of the Navy
DSCP	Differentiated Service Code Points
DSX	Digital Signal Cross-Connect
DWDM	Dense Wavelength Division Multiplexing
E911/NG911	Enhanced 911/Next Generation 911
EDP	Engineering Design Package
EFIST	Engineer, Furnish, Install, Secure, Test
EMT	Electrical Metallic Tubing
EOL	End of Life
EOS	End of Service
EPO	Emergency Power Off
ES&D	Enterprise Staging and Deployment
ESL	Enterprise Software License
ESOH	Environmental, Safety and Occupational Health
ETAS	Emergency Technical Assistance Services
EUB	End-user Building
EULA	End User License Agreement
EEVE	Enterprise Engineering and Verification Environment
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FFP	Firm Fixed Price
FISMA	Federal Information Security Management Act
FOUO	For Official Use Only
FSE	Field Service Engineer
FSO	Facility Security Officers
GAT	Government Acceptance Test
GFI	Government Furnished Information
GFP	Government Furnished Property
HIPAA	Health Insurance Portability and Accountability Act
HMX-1	Marine Headquarters Squadron One
HSPD-12	Homeland Security Presidential Directive-12
HVAC	Heating, Ventilating, and Air Conditioning
HW	Hardware
I3A	Installation Information Infrastructure Architecture
I3MP	Installation Information Infrastructure Modernization Program
IAW	In Accordance With
IBC	International Building Code
INFOCON	Information Operations Conditions
iRAPT	Invoice Receipt Acceptance and Property Transfer
ISN	Installation Service Node
ISP	Inside Plant
ISTC	Infrastructure Services Transport & Communications
IT	Information Technology
ITIL	Information Technology Infrastructure Library

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Acronym	Term
IUID	Item Unique Identification
IVR	Interactive Voice Recognition
JIE	Joint Information Environment
JITC	Joint Interoperability Test Command
JPAS	Joint Personnel Adjudication System
JTR	Joint Travel Regulation
KSA	Key Systems Attributes
LAN	Local Area Network
LCL	Logistic Lifecycle
LCSP	Life-Cycle Sustainment Plan
LOC	Letter of Clarification
LSC	Local Session Controller
LSTDM	Low Speed Time Division Multiplexing
MCCAST v2	Marine Corps Certification and Accreditation Support Tool
MCEN	Marine Corps Enterprise Network
MCCOG	Marine Corps Cyberspace Operation Group
MCSC	Marine Corps Systems Command
MDF	Main Distribution Frames
MPT	Manpower and Training
MOS	Mean Opinion Score
MOS	Military Occupational Specialty
MOSA	Modular Open Systems Approach
MSDS	Material Safety Data Sheet
MUDG	Military Unique Deployment Guide
NACI	National Agency Check with Written Inquiries
NACLC	National Agency Check with Law and Credit
NCA	National Capitol Region
NCES	Net-Centric Enterprise Services
NCI	Network Communications Infrastructure
NDA	Non-disclosure Agreement
NET	New Equipment Training
NIPRNet	Non-classified Internet Protocol Router Network
NIR	Non-Developmental Item Integration Review
NLT	No Later Than
NMCARS	Navy Marine Corps Acquisition Regulation Supplement
NMCI	Navy and Marine Corps Intranet
NOC	Network Operations Center
NSN	National Stock Number
OCI	Organizational Conflict of Interest
OCONUS	Outside Continental United States (includes Alaska and Hawaii)
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
ON	Optical Network
OSP	Outside Plant

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Acronym	Term
OSPDPR	Outside Plant Design and Performance Requirements
OTS	Optical Transport System
PAC	Post Award Conference
PCA	Physical Configuration Audit
PCR	Project Close-out Review
PDU	Power Distribution Unit
PERSEC Office	Personnel Security Office
PESHE	Programmatic Environment, Safety and Occupational Health, and Evaluation
PIA	Privacy Impact Assessment
PIEA	Proprietary Information Exchange Agreement
PII	Personally Identifiable Information
PM	Project Manager
PMM-172	Program Manager Marine, Customer Support and Strategic Sourcing
PMO	Provost Marshall's Office
PM N&I	Program Manager Network and Infrastructure
POA&M	Plan of Actions and Milestones
POC	Point of Contact
PoP	Period of Performance
PP	Protection Profiles
PPSM	Ports, Protocol, Services, and Management
PRS	Performance Requirements Summary
PSI	Personnel Security Investigation
PSR	Project Status Review
PSS	Pre-award Site Survey
PSTN	Public Switched Telephone Network
PUR	Purchaser User Rights
PUR	Product User Rights
QA	Quality Assurance
QAP	Quality Assurance Program
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QoS	Quality of Service
RMA	Return Material Authorization
RMF	Risk Management Framework
ROADM	Reconfigurable Optical Add/Drop Multiplexers
RTM	Requirements Traceability Matrix
RTS	Real Time Service
RU	Rack Units
S-PR	Secret Periodic Review
SAAR	System Authorization Access Request
SAR	Safety Assessment Report
SAT	System Acceptance Test

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Acronym	Term
SCAP	Security Content Automation Protocols
SDN	Software Defined Network
SEP	System Engineering Plan
SI	System Integrator
SIP	Session Initiation Protocol
SIPRNet	Secure Internet Protocol Router Network
SLA	Software License Agreement
SLIN	Sub-Line Item Number
SON	Statement of Need
SONET	Synchronous Optical Network
SPPN	Special Purpose Processing Node
SBPR	SSBI Periodic Reinvestigation
SSBI	Single Scope Background Investigation
SPPR	SSBI Phased Periodic Reinvestigation
SRG	Security Requirement Guides
SRTM	Security Requirement Traceability Matrix
SSR	Site Specific Requirements
STIG	Security Technical Information Guide
SURA	Software User Rights Agreement
SW	Software
T&E	Test and Evaluation
TAS	Technical Assistance Services
TCCB	Team Configuration Control Board
TDM	Time Division Multiplexing
TDP	Technical Data Package
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TIM	Technical Interchange Meeting
TMGB	Telecommunications Main Grounding Busbar
TMS	Telephony Management Systems
TOS	Terms of Service
TPN	Tactical Processing Node
TRDP	Technical Review Data Package
TPTCTS	Test Procedures, Test Cases, Test Scripts
TRR	Test Readiness Review
TSO	Technical Support Officer
TTP	Tactics, Techniques, and Procedures
UC	Unified Communications
UCR	Unified Capabilities Requirements
UFC	Unified Facilities Criteria
UID	Unique Identification
UII	Unique Item Identifier
UPS	Uninterrupted Power Supply
VLAN	Virtual Local Area Network

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Acronym	Term
VLRA	Valve Regulated Lead Acid
VoIP	Voice over Internet Protocol
VRF	Virtual Routing and Forwarding
VSS	Verification Site Survey
WAN	Wide Area Network
WAP	Wireless Access Point
WAWF	Wide Area Work Flow
WLAN	Wireless Local Area Network
WSS	Wave Selectable Switch
XMPP	Extensible Messaging and Presence Protocol

3 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

There will be no Government furnished property for this contract.

4 CONTRACTOR FURNISHED ITEMS AND RESPONSIBILITIES

4.1 GENERAL

The contractor shall furnish all supplies, equipment, facilities, and services required to perform work under this contract that are not identified in Section 3 of this PWS.

Accountability for all hardware and software is the sole responsibility of the contractor until such time as the Government has performed the final acceptance. All Bills of Ladings (BoLs) and shipping documents shall be provided to the Program Office upon receipt of the shipments. The contractor shall provide the Government with an initial Bill of Materials (BOM) and Configuration Management Database (CMDB) at the Technical Interchange Meeting (TIM). The contractor shall provide a final Material and Equipment List or BOM to the Government prior to the start of Cut-Over to ensure proper and accurate property transfer. The Material and Equipment List/BOM will include, at a minimum, the following fields: name, part number, item description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

The contractor shall coordinate shipment of all project equipment listed in the BOM from vendor facility to the installation Distribution Management Office (DMO). The contractor shall mark the equipment in accordance with MIL-STD 130N w/Chg 1 and provide the Government with a completed Asset Shipping Report (ASR) and Form DD1149 for all new equipment delivered under this contract. The DD1149 Form shall contain, at a minimum, an item description, serial number, part number, unit of issue, quantity received, unit price, and total cost. The contractor shall coordinate a turnover schedule with the gaining command and perform a serialized "item by item" inventory with the Supply Officer, or designated representative, and obtain a signature for the delivery of the equipment. As part of the equipment delivery, the contractor shall provide the final Material and Equipment List.

4.2 MATERIALS EQUIPMENT

The contractor shall provide and deploy all materials and equipment required to transport, install, configure, provision, and test the systems and subsystems delivered under the task and delivery orders in accordance with established industry practices and Original Equipment Manufacturer (OEM) methodologies, procedures, and sustainment support activities.

5 SPECIFIC TASKS

5.1 ENGINEER, FURNISH, INSTALL, SECURE, TEST

The contractor shall be responsible to EFIST and make operational a Regional UC System and a Base Area Network (BAN). Each system shall be completely functional with the required programming, interfaces, hardware, software, software licenses, ancillary equipment, parts, databases, and material for all identified users, services, and requirements. The modernized systems and associated sub-systems shall retain all functionality of the existing systems and provide additional functionality to meet the requirements specified in the site-specific requirements specification. To ensure compliance with all requirements, the contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all identified requirements to the Performance Requirements Summary (PRS). The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, and demonstration) to validate the contractor's proposed system design for Government acceptance. All proposed systems configurations will be baselined in accordance with PM N&I, Configuration Management Plan (CMP). The contractor shall repurpose/reutilize existing equipment to the maximum extent practical based on their solution. In addition, the contractor shall EFIST and make operational any ancillary equipment that is required to support this effort such as grounding, firmware, interfaces, patch panels, applications, and similar equipment necessary to deliver a complete and useable solution.

The contractor shall use, to the greatest extent possible, enterprise software licenses for Commercial Off-the-Shelf (COTS) software products available from the Department of the Navy (DoN) Enterprise Software License (ESL) agreements for any software required to support their proposed solution. The DoN ESL Team is aligned under Program Manager, Customer Support and Strategic Sourcing (PMM-172) as a joint Navy and Marine Corps strategic sourcing effort to consolidate, centralize, and streamline the acquisition and management of DoN ESL Agreements. Enterprise software Licenses agreements are available for the following applications: Microsoft, Oracle, Avaya, Symantec/Veritas, ActivIdentity, CISCO SMARTnet, VMware, Solarwinds, and Red Hat. The contractor will coordinate the use of available enterprise software license agreements with the ISTC Program Office after contract award.

The contractor shall be responsible for replacing and correcting any hardware, software, applications, data, configurations, material, or services omitted and/or installed in contractor error without any extra expense or delay to the Government. The contractor shall not be responsible for replacing or correcting existing Government property, software, or facility problems, outside the scope of this PWS.

5.1.1 REGIONAL UNIFIED COMMUNICATIONS

The Regional UC solution shall provide business voice capability to each end-user in those locations where the solution will be deployed. MCB Quantico shall include all Non-classified Internet Protocol Router Network (NIPRNet) users on MCB Quantico, users at Indian Head, MD, Tech Parkway, Quantico Corporate Center, and Barrett Heights in Stafford, VA. The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911)

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services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

5.1.2 BASE AREA NETWORK

The BAN consists of a Distribution Layer and an Access Layer. It shall provide for the transportation of voice, video, and data on all locations where the solution will be deployed. There are nine Distribution Nodes (DNs) located on MCB Quantico; Bldgs. 1999, 24204, P719, 3255, 3300, 2076, 26100, 27282, and Russell Knox. These nodes shall be connected with a Dense Wavelength Division Multiplexing (DWDM) system with a Reconfigurable Optical Add/Drop Multiplexer (ROADM) located at each node. All circuits traversing the installation shall use the DWDM. Circuits shall be transitioned off the SONET network. The BAN shall satisfy the requirements of Section 8. The BAN has no external connectivity but gets core connectivity through the Core Nodes (CNs) and the Installation Gateway.

DWDM technology will provide backbone transport connectivity at MCB Quantico. SONET will be removed.

The Contractor shall provide a second design with an “All PON” solution in accordance with section 8 and par 8.3.2.2.

5.1.3 FACILITY/NODE PREPARATIONS

5.1.3.1 POWER SYSTEMS (OPTION)

The Contractor shall evaluate the exiting AC and DC power systems at all the CN and DN locations as a function of the VSS. The contractor shall propose a solution to provide sufficient power to support the modernized system if the existing systems are deemed insufficient. The proposed solution will consist of an AC Uninterrupted Power Supply (UPS) system that supports the proposed transport and UC solution (3 phase AC UPS are preferred by the Government where applicable) and meets the below requirements.

- The modernized power systems shall have their battery modules in an N+1 configuration.
- The UPS batteries shall be sized to support at least 30 minutes +/- 10% of transitional power. If battery size does not meet the +/-10%, prior Government approval will be needed.
- Lithium-Ion batteries may be substituted for Valve Regulated Lead Acid (VRLA) batteries with prior Government authorization.
- If a component chassis requires DC power, a dedicated rectifier shall be sized and installed within the same rack as that DC chassis to supply DC power unless the contractor determines another method of providing DC power to be more economical.
- The modernized power system shall be equipped with an integrated self-testing Emergency Power Off (EPO) switch.
- The EPO shall be installed IAW the NFPA 75 and the directions of the Local Authority Having Jurisdiction (AHJ).

5.1.3.2 AUXILIARY INFRASTRUCTURE

Auxiliary Infrastructure is comprised of the equipment and components that supplement the primary systems and subsystems provided in the proposed solution. This equipment consists primarily of equipment racks/cabinets, ladder rack, cable tray, re-enforcing structures that house the electronic components installed as a part of the overall modernization effort at each DN. All requirements for auxiliary infrastructure will be verified during the VSS.

5.2 CYBERSECURITY

The contractor, in coordination with the ITSC Project Manager and ITSC Cybersecurity Representative, shall perform all recommended Cybersecurity configuration settings, programming, and configurations of components being provided to ensure compliance with all cyber requirements. At a minimum, the contractor shall provide the following items for Government review: System Configuration Hardware/Software Baseline, Network/Security configurations, Ports, Protocol, Services, and Management (PPSM), system and equipment warranties, software license agreements, software upgrades, and all documentation required to support the Assessment and Authorization (A&A) and Configuration Control Board (CCB) processes. Refer to the [Table 2Table 2](#) - Contract Deliverables Matrix for specific Cybersecurity requirements. All products must be current on the DoDIN Approved Product List (APL). The system shall be designed and implemented with hardware/software that is compliant with and fielded in accordance with the Joint Interoperability Test Command (JITC) approved configuration and Military Unique Deployment Guide (MUDG).

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5.2.1 JOINT INTEROPERABILITY TEST COMMAND CERTIFICATION

All proposed UC system hardware and software shall have received JITC certification in accordance with the latest version of the DoDI 8100.4, Unified Capabilities before the system can connect to the DoD Information Network (DoDIN). All proposed system hardware and software shall have a valid JITC certification by the Test Readiness Review (TRR). Connection to the DoDIN will not be authorized until certification is updated and the system is fielded in accordance with the certification letter and applicable JITC deployment guides.

Non-certified or expiring JITC certified systems may be proposed provided a road map and Plan of Actions and Milestones (POA&M) is included in the offeror's proposal indicating that JITC certification will be achieved prior to TRR. Additionally, the offeror shall provide a mitigation plan in the event the proposed system does not achieve the required JITC certifications by TRR.

5.2.2 RISK MANAGEMENT FRAMEWORK FOR DoD INFORMATION TECHNOLOGY

Before the proposed hardware and software solution can be connected to the DoDIN via the MCEN, all system hardware, software, and ancillary equipment shall be Cybersecurity compliant IAW the latest version of the technical controls mandated by *DoDI 8510.01, Risk Management Framework (RMF) for DoD Information Technology (IT)*. In addition, the contractor shall assist the Government by providing, developing, and submitting any necessary system documentation, settings, specifications, and hardening (application of Security Technical Information Guides (STIG), vulnerability scans, testing and installing patches, and vulnerability mitigation) required to update the Government Assessment and Authorization (A&A) package and entry into the Marine Corps

Certification and Accreditation Support Tool (MCCAST v2). The delivered system will be incorporated to the BAN/LAN Site Accreditation following installation.

5.2.3 SECURITY AND TECHNICAL IMPLEMENTATION GUIDES, SECURITY REQUIREMENT GUIDES, AND ASSURED COMPLIANCE ASSESSMENT SOLUTIONS SCANS

The Contactor shall apply all applicable Defense Information Systems Agency (DISA) STIGs and Security Requirement Guides (SRGs) to all applicable hardware and software. This shall require the contractor to perform system vulnerability scans, system setting adjustments, software updates/patches, or system hardware/software reconfigurations and hardening. The contractor shall provide applicable STIG checklists; vulnerability scans with the DoD-approved Assured Compliance Assessment Solutions (ACAS) scanning tool, and a POA&M with mitigations and estimated completion dates for all open Cybersecurity findings. ACAS Vulnerability findings are defined as Critical/High = Category (CAT) I, Medium = CAT II, and Low = CAT III. STIG findings are defined as follows: CAT I, CAT II, and CAT III. All CAT I vulnerabilities shall be remediated or mitigated. All CAT II/III vulnerabilities must be remediated if a patch is available and STIG/SRG settings are configured without affecting system functionality. If a patch/STIG/SRG setting is not available or affects operational functionality, an acceptable mitigation (i.e., current processes or measures that reduce vulnerability exposure) must be provided in the POA&M with recommended completion dates.

All ACAS scans will be accomplished using the DISA Field Security Operations (FSO) scan policy Government Furnished Information (GFI) and latest ACAS plugin definitions available on the DoD Patch repository at the time scans are conducted. Contractor shall ensure all ACAS scans are completed with proper credentials and IAW the latest policies and guidelines as defined by DISA and/or the U.S. Marine Corps. All automated and manual STIG/SRG settings shall be applied.

5.3 CONTRACT PROJECT PHASES

The accepted Request for Proposal (RFP) design constitutes the Conceptual Design baseline and is the starting point for every contract project.

This section identifies the Project Phases and Project Milestones/Reviews associated with this contract. These milestones include, but are not limited to, all the system technical reviews and audits ensuring the engineered design satisfies the PRS outlined in Part 8 of the PWS, ~~Site Specific Requirements~~, and NCI Systems Engineering Plan (SEP). This timeline represents “Tailored Conformance” to meet a Systems Engineering Approach as directed by DoD guidance. The contractor’s Contract Schedule shall include, at a minimum, all of the events identified in this section, beginning with Site Task Award, to mitigate potential adverse impacts to cost, performance, and schedule.

The ITSC Contract Notional Timeline depicted in Figure 1 identifies the sequence of events for the contract.

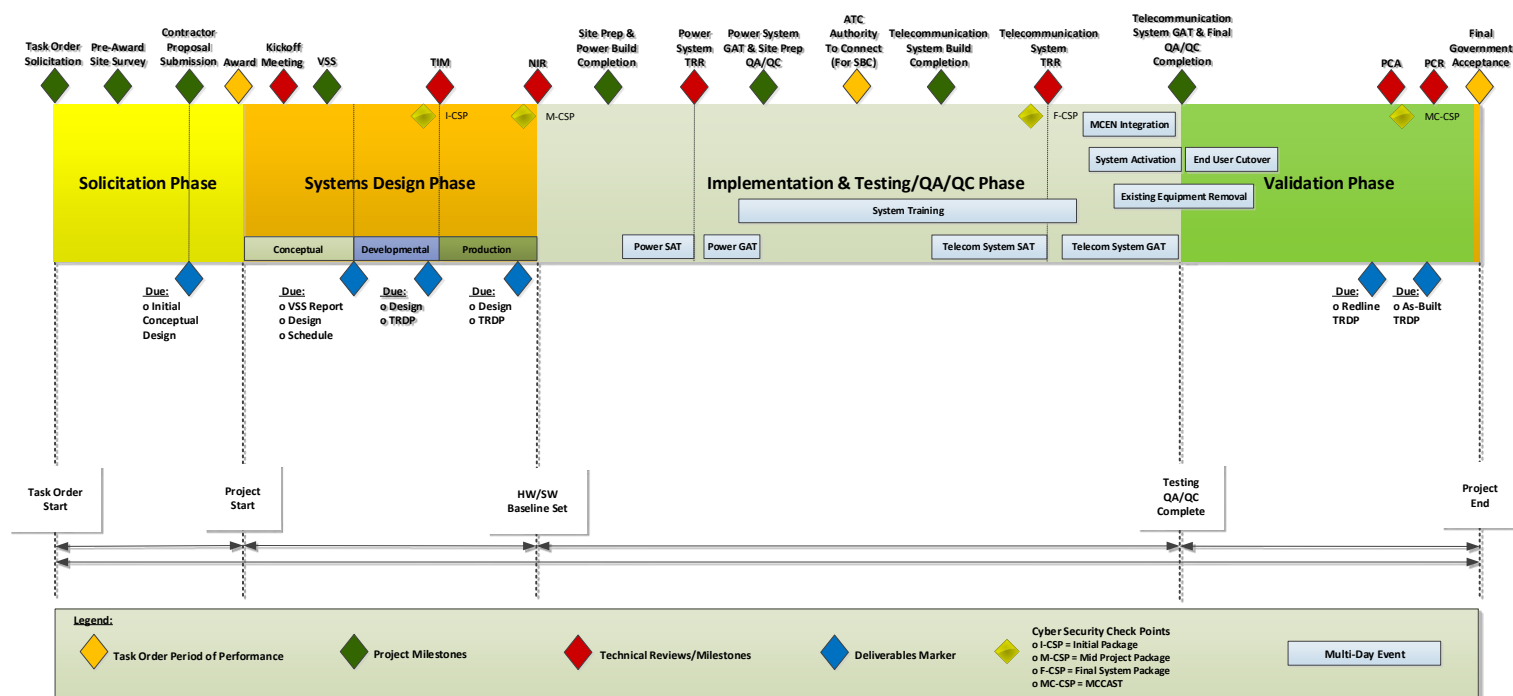


Figure 1 – Notional Timeline

5.3.1 PROJECT MILESTONES AND EVENTS

The Notional Timeline depicted in Figure 1 coincides with the expected Contract events beginning with the Contract Solicitation. Mapping these design stages to ITSC programmatic, Implementation Phases are as follows.

5.3.1.1 CONTRACTOR PROPOSAL SUBMISSION

The contractor shall submit a proposals within 30 calendar days from receiving the Request for Proposal from the Government. The proposal shall contain the contractor's proposed conceptual design and architecture, pricing, materials and equipment list, project plan, and project timeline including all the events identified in the notional timeline (durations, dates, and the proposed period of performance).

5.3.1.2 SYSTEM DESIGN PHASE

The System Design Phase is initiated with the Award, signifying the start of the period of performance. Subsequent to the Award, the Government shall hold a Post Award Kick-off meeting. This Phase shall also include a contractor Verification Site Survey (VSS) to validate assumptions made on the information provided as part of the PWS. Throughout the duration of this Phase, the contractor shall deliver a detail system design and Technical Data Package (TDP) to be reviewed at designated technical reviews.

The contractor shall also deliver Cybersecurity documentation prior to the associated technical review events IAW the timelines identified in [Table 2](#) - Contract Deliverables Matrix.

Table 2 – Contract Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Project Schedule	Proposed: fifteen (15) Calendar Days after the start of the VSS Monthly: NLT the last day of every month (Ad hoc Project Schedule Reports may be Requested)	MS Project 2016 and PDF
2	Conceptual (Proposed) Design	Revised: NLT 15 (15) calendar days after the VSS	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF
3	Verification Site Survey Report	NLT fifteen (15) calendar days after the VSS.	VSS Report: Contractor Format (PDF or Microsoft Office Word 2016 or later)
4	Technical Data Package	Developmental: NLT twenty-five (25) calendar days prior to the TIM. Production: NLT twenty-five (25) calendar days prior to the NIR. Red Line: NLT the completion of Cutover. As-Built: NLT Twenty-five (25) calendar days prior to the PCR.	Engineering Design Plan: Government-provided Format (PDF or Microsoft Office Word 2016 or later) Drawings: AutoCAD and PDF M&E List: Microsoft Office Excel 2016 or later HW/SW Baseline (CMDB): Microsoft Office Excel 2016 or later
5	RTM	Initial: NLT twenty-five (25) calendar days prior to the TIM. Revised: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
6	SAT Plan	Initial: NLT twenty-five (25) calendar days prior to the TIM. Revised: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
7	ACAS Scans Schedule	Initial: NLT twenty-five (25) calendar days prior to the TIM. Final: NLT twenty-five (25) calendar days prior to the NIR.	Contractor Format (PDF and Microsoft Office Project 2016 or later)
8	Cyber Security POA&M	Initial: NLT twenty-five (25) calendar days prior to the TIM. Final: NLT twenty-five (25) calendar days prior to the NIR.	Government provided format (PDF and Microsoft Office Excel 2016 or later)
9	Technical Controls	Initial: NLT twenty-five (25) calendar days prior to the TIM. Revised: NLT twenty-five (25) calendar days prior to the NIR.	Government Provided Format (Microsoft Office Excel 2016 or later)

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Item Number	Item Title	Due	Deliverable Format
10	Safety Assessment Report (SAR)	NLT twenty-five (25) calendar days prior to the TIM.	Contractor provided format (PDF and Microsoft Office Excel 2016 or later)
11	Power and Site Prep TPTCTS	Initial: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
12	Telecommunications TPTCTS	Initial: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the start of the Test Event.	Government-provided Format (PDF or Microsoft Office Word 2016 or later)
13	Cutover Plan	Initial: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
14	IUID Plan	Initial: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
15	STIG/SRG Check List	Initial: NLT twenty-five (25) calendar days prior to the NIR. Revised: NLT sixty (60) calendar days prior to the TRR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Native Format (.ckl) file
16	ACAS Vulnerability Scans	Initial: NLT seventy-five (75) calendar days prior to TRR. Final: NLT twenty-five (25) calendar days prior to TRR.	.nessus File format
17	Completed Power TPTCTS (if Power Option is exercised)	NLT ten (10) calendar days after completion of Power GAT.	Government provided format
18	Completed Telecommunications System TPTCTS	NLT ten (10) calendar days after the Telecommunications System GAT.	Government provided format (Microsoft Office Word 2016 and PDF)
19	Warranty Procedure Guide	NLT twenty-five (25) calendar days prior to the PCA.	Contractor Format (PDF)
20	Installations, Operations and Maintenance, and SW User Manuals	NLT fifteen (15) calendar days prior to the PCA.	Contractor Format (PDF)
21	MCCAST Import Template	Final: NLT fifteen (15) calendar days prior to the NIR.	Native format
22	Asset Shipping Report/DD1149	An ASR and DD1149 shall be provided with each equipment shipment to the Government	Government-provided ASR Format (Microsoft Office Excel 2016 or later)
23	Security Requirement Traceability Matrix (SRTM)	Initial: NLT twenty-five (25) calendar days prior to NIR. Final: NLT twenty-five (25) calendar days prior to TRR.	Format: Government provide format (Excel 2016 or later)
24	PPSM Data	Initial: NLT twenty-five (25) calendar days prior to TIM.	Format Government provide format (Excel 2016 or later)

Item Number	Item Title	Due	Deliverable Format
		Final: NLT twenty-five (25) calendar days prior to NIR.	
25	Security Content Automation Protocol (SCAP) Scans	Initial NLT seventy-five (75) calendar days prior to TRR. Final: NLT twenty-five (25) calendar days prior to the TRR.	Native Format

The System Design Phase consists of three design levels: Conceptual, Developmental, and Production. (Reference Section 5.7.1.1 – Product Drawings and Associated Lists)

Conceptual Design provides the framework for the allocated baseline by defining the system and subsystem architectures and is delivered or established at proposal. The design shall include hardware and software lists, depiction of critical support system interfaces and any underlying services architectures as well as identification of all system CNs, DNs, and EUBs to ensure that the proposed system has an expectation of being operational, feasible, and satisfies the site-specific requirements.

Developmental Design describes the integration approach and is used to evaluate and validate that the design meets the required performance. This information is used to produce materiel for test and for the analytical evaluation of the inherent ability of the design approach to attain the required performance. This design level shall include but not limited to any updates associated with the Conceptual Design, all impacted building floor plans (both top and elevation views), wire, fiber, power, and grounding routing details, all rack/cabinet and ladder tray drawings. These design components shall be delivered prior to the Technical Interchange Meeting (TIM) for technical review and adjudication.

Production Design is a detailed and complete design that captures any updates to the Conceptual and Developmental Designs and shall include but not limited to all components, recommended spares, and applicable repair parts. The production design shall also include all applicable detailed wiring and cabling schematics. These design components shall be delivered prior to the Non-Developmental Item Integration Review (NIR) for technical review and adjudication.

5.3.1.2.1 AWARD KICK-OFF MEETING

The Kick-off meeting shall be a review and discussion of the documents provided in the contractor proposal submission and provide a forum for both the Government and contractor to reach consensus on all project implementation expectations. Government will provide applicable deliverable templates to contractor. The contractor shall deliver their proposed project schedule at the kickoff meeting.

5.3.1.2.2 VERIFICATION SITE SURVEY

The contractor shall proceed to the place of performance to conduct a Verification Site Survey (VSS) within twenty (20) calendar days of Contract Award. The purpose of the VSS is to provide the contractor(s) an opportunity to validate assumptions made on the site information provided in the PWS. Coordination of the VSS visitation shall be facilitated by the ISTC Project Manager, the contractor, and the site TSO. The VSS Report, Revised Conceptual (Proposed) Design, and the Baseline Project Schedule shall be provided to the Government IAW the criteria and timeline identified in [Table 2](#) - Contract Deliverables Matrix. The VSS Report shall provide an accurate description of the existing conditions and identify any potential discrepancies or changes to the proposed design. The contractor shall submit an updated proposal based off of the VSS results and upon Government review and acceptance, authority to proceed to Developmental Design shall be granted and the Baseline Project Schedule established.

5.3.1.2.3 TECHNICAL INTERCHANGE MEETING

The TIM is an informal meeting that fosters the exchange of ideas through open discussion and participation. The purpose of the TIM is to provide a forum for problem solving and information

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sharing between Government and contractor personnel that encourages cooperation and fosters collaboration in resolving technical and engineering deficiencies and/or discrepancies. TIMs are to be conducted when necessary as determined by the COR/Project Manager. The contractor shall conduct at least one on-site TIM at the place of performance to adjudicate the results of the Government's review of the Developmental Design.

5.3.1.2.4 NON-DEVELOPMENTAL ITEM INTEGRATION REVIEW

An NIR is a multi-disciplined product and process assessment to ensure the system under review can proceed into the Implementation & Testing and Quality Assurance (QA)/Quality Control (QC) Phase. This review assesses the TDP artifacts and reviews the Production Design. The contractor shall participate in a Government lead NIR IAW the NCI SEP. The NIR is a formal milestone review requiring Government acceptance. Successful completion of the NIR will establish the product baseline. The contractor shall demonstrate that the Detailed Design satisfies the specifications identified in the Contract Solicitation, outlined in Part 8 of this documents, and the NCI Systems Engineering Plan (SEP)~~Site Specific Requirements (SSR)~~. The contractor shall present a test and system cutover for the purpose of performing design verification and validation. The contractor shall also prepare and provide a Safety Assessment Report (SAR). The SAR shall identify the contractor's mitigation of any safety and environmental hazards identified in the NCI Programmatic Environment, Safety and Occupational Health, and Evaluation (PESHE).

5.3.1.3 IMPLEMENTATION, TESTING, AND QA/QC PHASE

The Implementation, Testing, and QA/QC Phase shall begin with the acceptance of all deliverables associated with the NIR milestone. The contractor shall execute the system build to the accepted Production Design, beginning with Site Preparation and Power System installations, followed by installation and integration of the telecommunications systems components. The contractor shall provide continuous oversight of all subordinate contractors in accordance with all aspects of program management.

5.3.1.3.1 SITE PREPARATION BUILD COMPLETION

This milestone incorporates the procurement and installation of all required system infrastructure, including, but not limited to, system racks, cabinets, and ladder racking. Upon completion of this milestone, the contractor shall ensure the installation complies with all local and regulatory requirements.

5.3.1.3.2 SYSTEMS ACCEPTANCE TEST AND GOVERNMENT ACCEPTANCE TEST

Test and Evaluation (T&E) is an integral part of the systems engineering process. System/Subsystem Testing demonstrates the delivered solution fulfills the requirements and specifications of the PWS. Testing shall be performed in two phases, the System Acceptance Test (SAT) and the Government Acceptance Test (GAT). Separate SAT/GAT events will be performed for Telecommunications systems. SAT shall be contractor-performed testing that occurs prior to TRR. The Government will observe the SAT.

It is expected that the contractor shall install and test system/subsystem components without connection to the DoDIN/MCEN. As a result, the contractor may not be able to complete all required system and sub-system testing during SAT. It is expected that systems and subsystems requiring MCEN connection are hardened. The GAT leverages the final SAT documents provided by the SI to

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determine testing that demonstrates system-wide functionality of hardened devices. The government will attend any contractor(s) scheduled SAT testing events to ensure test data integrity. GAT will be the final test event and all connections and interfaces shall be established during this time.

5.3.1.3.3 TEST READINESS REVIEW

The TRR is a significant multi-disciplined technical review designed to ensure the system and/or subsystem under review is ready for Government testing and functions as the transition from SAT to GAT. The TRR assesses test objectives, test methods and procedures, test scope, and safety to confirm required test resources have been properly identified, made available, and coordinated to support planned tests. The TRR verifies the traceability of planned tests through the use of the RTM. It determines the completeness of test procedures and their compliance with test plan descriptions. The TRR also assesses the system under review for development maturity, cost/schedule effectiveness, and risk to determine readiness to proceed to formal testing.

5.3.1.4 VALIDATION PHASE

The Implementation Phase shall transition into the Validation Phase upon successful completion of the Telecommunications System GAT and the final QA/QC inspection.

5.3.1.4.1 CUTOVER

Cutover is the process of migrating existing circuits and end-user services (voice and data) from legacy systems to the newly installed contractor-provided solution. The contractor shall develop a detailed Cutover Plan to support cutover. The Cutover Plan shall provide the approach, schedule, required Government resources, system outages, and fall back plan.

The contractor shall be responsible for performing a flash cutover, unless deemed impractical due to technical, logistical, or base operational constraints, of all services identified in this document. This shall include capturing and validating existing system's database and subscriber information, transferring information, configuring, and deploying the new system to the end-user device. This information includes, but is not limited to, dial plans, subscriber features and capabilities, call lists, settings and configurations. The cutover shall also include hardware and patching of existing subscribers and services inside the closets and at the end user locations. Cutover methods utilized shall minimize service-affecting outages and be described in detail in the Cutover Plan.

The contractor shall conduct service-affecting cutovers of systems outside normal duty hours with minimal downtime as designated by the TSO. During system cutover, the contractor shall establish, staff, manage and support all on-site help desk functions and responsibilities to include customer calls, creating trouble tickets and logs, tracking reports for active and closed tickets, answering subscriber questions and correcting deficiencies, and coordinating with the TSO to prioritize trouble tickets. An electronic and paper copy of the Trouble Ticket Log shall be maintained on-site for Government inspection during cutover. The Trouble Ticket Log shall be turned over to the Government after resolution and closure of all Trouble Tickets directly attributable to the contractor's solution.

5.3.1.4.2 SYSTEM OUTAGES

Any work requiring system downtime shall occur during off-duty/weekend hours, be kept to a minimum, and not occur without specific acceptance from ITSC Project Manager and the site TSO.

The contractor shall submit a system recovery/fallback plan for review and acceptance for all scheduled outage. The system recovery/fallback plan shall be provided as part of the Cutover Plan.

5.3.1.4.3 REMOVAL OF EXISTING EQUIPMENT

Upon Government approval, the contractor shall decommission, disconnect, de-install, dismantle, and remove all displaced core switching equipment. . The contractor shall remove any system anchors, brackets, and racks protruding from the floors and/or walls. The contractor shall ensure that no active service is disrupted during the switch or equipment removal and shall be liable for any costs incurred by the Government to restore disrupted service. All replaced core switching equipment shall be removed and properly disposed of by the contractor.

Existing equipment identify by the Government for reuse and redistribution will be turned over to the Program Office upon removal. Disposal of all equipment shall be coordinated through the TSO and the Installation's Defense Logistics Agency - Disposition Services (DLA-DS) to ensure compliance with Government disposal procedures. The contractor shall provide the Government with a document identifying all replaced core switching equipment. At a minimum, the following fields shall be included: name, part number, description, national stock number (if applicable), quantity, unit cost, unique item identifier, unit of measure, accountable contract number, and location (i.e., building and rack number and elevation).

5.3.1.4.4 PHYSICAL CONFIGURATION AUDIT

The Physical Configuration Audit (PCA) shall be conducted to determine conformance of the as built configuration to the product baseline with the TDP. The PCA shall be a joint audit conducted by the contractor and Government. The results of the audit shall be documented by the contractor and adjudicated by the Government before Project Closeout Review (PCR) for inclusion in the As-built TDP.

5.3.1.4.5 PROJECT CLOSEOUT REVIEW

The Project Closeout Review (PCR) shall be conducted to verify all project requirements have been satisfied, all deliverables have been submitted to the Government, and all Government administrative actions have been completed.

5.4 PROJECT ADMINISTRATION/MANAGEMENT

5.4.1 PROJECT PLAN

The contractor shall establish, deliver, and ensure that a Project Plan remains in effect throughout the project period of performance. At a minimum, the Project Plan shall focus on and align with the Project Schedule. The Project Plan should address areas such as Safety, Configuration Management, and Risk Management. The Project Plan shall clearly demonstrate an understanding of the project timeline and associated milestones for the project and how the contractor plans to satisfy the requirements of the PWS. The Project Plan shall address a management approach and highlight actions that will be taken to mitigate risk to cost, schedule, and performance, highlight any possible positive or negative impacts, and provide details on the process to deal with unforeseen site conditions, schedule slips, or other problems of program risks. The Plan shall describe the contractor's approach to Resource Management and shall identify the project team.

5.4.2 PROJECT SCHEDULE

The contractor shall deliver and maintain an accurate and up-to-date project schedule that accurately reflects the current status of the project progress and resources. To ensure proper management and accuracy of the project schedule, the contractor shall coordinate and consult with relevant stakeholders throughout the course of the project. The project schedule shall include all significant events, detailing each sequence of work that should be completed, identify major milestones and tasks from start to completion of the project, as well as include all critical path events. At a minimum, the project schedule shall identify the following columns: Start, Finish, Baseline Start, Baseline Finish, Duration, and Percent Complete for each task, to include the associated task paths (successors, predecessors, etc.). The contractor shall deliver the proposed Project Schedule within twenty (20) calendar days after the start of the VSS. The Government will then have fifteen (15) calendar days to review and coordinate with the contractor any necessary corrections and updates in order to establish a baseline schedule. The accepted project schedule will then become the baseline and will not change throughout the duration of the project, except in the event of contract modifications that impact the project schedule (scope increase/decrease, etc.).

The contractor shall reference and adhere to the guidance in the NCI Schedule Management Plan.

5.4.3 MEETINGS

The contractor shall plan, host, attend, coordinate, support, and conduct meetings, formal reviews, conferences, and audits required during the period of performance of this contract. Meetings shall be conducted at either Government or contractor facilities, or via conference call/video teleconference. The contractor shall prepare agendas and meeting presentation materials for each meeting. The contractor shall also provide minutes and reports following each meeting. The minutes must include a summary of all action items, dates assigned, responsible parties, and estimated completion dates of testing.

5.4.3.1 PROJECT STATUS REVIEW MEETINGS

The contractor shall plan, host, coordinate, and conduct a Project Status Review (PSR) each week throughout the period of performance for the purpose of reviewing and updating the Government on the current status of the project unless otherwise noted by the Government Project Manager. To support the administration and management of the Weekly PSR, the contractor will provide a Meeting

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Agenda, Action Items List, and Project Schedule two (2) calendar days prior to the execution of the Weekly PSR. In addition, the contractor shall provide meeting minutes NLT two (2) calendar days after the PSR.

The Meeting Agenda will address, at a minimum, the following areas of concern:

1. Introductions/Documentation of Attendance
2. Summary of Week's Activities
 - a. Issues encountered and resolutions taken to address
 - b. Issues encountered and still unresolved
 - c. Completed activities for the week
3. Activities Planned for the following week
4. Overall Project Status Review
5. Action Item/Register Review
6. Review Deliverables Status
7. Review any changes to the TDP and Design Drawings (Redline Drawings)
8. Materials Status
 - a. Discuss preformed Quality Reviews and the results
9. Coordination Resolution of any identified deficiencies
10. Discussion of Upcoming Significant Events; possible issues and mitigations (as needed)
11. Project Schedule Review relative to the Baseline Project Schedule for thirty (30) calendar days before and thirty (30) calendar days after the PSR
12. Coordinate any staffing updates to the project team(s)
13. Additional Questions/Open Forum
14. Meeting Summary/Assigned Action Item Review.

An Action Item List shall be maintained and delivered as part of the contractor's weekly progress. Closed action items shall only be presented one time. The Action Item List shall contain the following tabs at a minimum:

1. Meeting Attendees
2. General
3. Site Prep
4. Data

5. Voice
6. Schedule Review
7. Deliverable Review
8. Closed
9. Risk Log
10. Personnel
11. Shipping
12. Damage Incident Log
13. Stakeholder Contact Info
14. Risks Matrix

5.4.4 QUALITY CONTROL

The contractor shall develop and maintain an effective quality control program to ensure services are performed in accordance with this PWS. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The contractor's quality control program is the means by which he assures himself that his work complies with the requirement of the contract. The contractor shall provide a written Quality Control Plan (QCP) with the IDIQ proposal. Any changes arising from this effort will be incorporated into any subsequent award. Post-award changes to the QCP shall be submitted to the Contracting Officer and COR within five (5) calendar days of the affected change. The Contracting Officer will provide written acceptance of any proposed changes after delivery of the revised QCP. In addition, the contractor shall incorporate the following minimum elements into the QCP.

- Definition of contractor quality control management lines of responsibility
- Quality Control Management System Process
- Internal Design Review/Change Control Process
- Internal Document Control Process
- Process for Testing
- Process for the execution of Corrective Actions
- Process for maintaining Quality Assurance records throughout the project lifecycle
- Process for performing random internal Quality Control audits.

5.4.4.1 QUALITY ASSURANCE

The Government will evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP). This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable quality levels. The contractor shall provide an assessment detailing their conformance to both the technical and programmatic management of the contract.

5.5 LOGISTICS SUPPORT

The contractor shall provide dedicated logistic support to plan and coordinate efforts that integrate logistics and life cycle support considerations into the design of the system. The effort shall be conducted as an integral part of the development, integration, and test processes to define the range and depth of the required support, to develop supportability data products, and to address all applicable elements of logistics.

5.5.1 LOGISTICS MANAGEMENT

A joint Government/contractor coordination shall be established to monitor the status of the program implementation. The coordination will be conducted to address logistic matters, schedules, warranty, and PWS performance. The Government will oversee and monitor the contractor's implementation of applicable logistics elements during the project period of performance and throughout the warranty period. The Government has the right to request status of what's in place in and in storage at any time during the contract.

5.5.2 ITEM UNIQUE IDENTIFICATION

The contractor will develop an Item Unique Identification (IUID) Plan and implement specific IUID markings, in accordance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.211-7003, DFARS 252.246-7001, DFARS 252.246-7006, DFARS 252.245-7001, SECNAVINST 4440.34, and MIL-STD-130N w/Chg 1.

All spare parts, secondary repairable items, and consumables that exceed \$5,000 and Government selected items under \$5,000 will be marked with the item IUID prior to delivery to the Government.

The IUID marking shall be incorporated into existing data plates when possible. Bar coding and the two dimensional IUID data matrix shall be machine-readable with common optical scanning devices and be accompanied by the corresponding human readable markings when practical. All 2D data labels shall be permanently affixed and shall ensure readability when equipment is installed for operational use. The IUID plan shall also describe the marking process and identify marking locations for each item identified. The contractor will identify the location of approved IUID markings within all drawings.

The contractor will load all IUID data into the DoD IUID Registry NLT fifteen (15) calendar days after completion of the PCA. Additionally, the contractor shall load all serial items to include IUID data into invoice Receipt Acceptance and Property Transfer (iRAPT) formally known as Wide Area Work Flow (WAWF). The contractor will provide an IUID Marking Activity and Verification Report for each system and spares delivered to the Government. The IUID Marking Activity and Verification Report will include a listing of all IUID assigned numbers by Contract Line Item Number (CLIN), Sub-Line Item Number (SLIN), or Exhibit Item and contain the model number, part number, serial number (if applicable), and parent/child relationship.

5.5.3 PARENT END ITEM DATA PLATE INFORMATION

The contractor will use MILSTD 130N w/Chg 1, Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the ITSC data plate. The Parent End Item 2D matrix shall contain human and machine-readable markings and shall be no less than 1 cm wide and no less than 40 percent contrast. The data plate must be located in an area that is readable when

equipment is installed. The machine readable information (MRI) marking shall represent the below encoded data elements: Nomenclature

1. NSN (if available)
2. Design Activity: (MFR ID Cage Code)
3. Serial Number
4. Government Ownership Designation: U.S. Property
5. Contract Number
6. Two-dimensional IUID data matrix
7. Unique Item Identifier (UII).

The minimum human-readable data plate information for ISTC Parent End Item is listed below:

1. OEM part number
2. OEM Cage code
3. Serial number

The data plate format example is listed below:



5.5.3.1 SUB ASSEMBLY DATA PLATE INFORMATION

The contractor will use MILSTD 130N w/Chg 1, Table IV (UII Construct 1 or 2) and Figure 1 of MIL-STD-130N as a guide when developing the ISTC sub-assembly data plate. The Sub-Assembly 2D matrix shall contain human and machine-readable marking in accordance with par 5.5.3.

5.5.4 WARRANTY

The contractor shall provide a full, unlimited two-year warranty for all contractor provided hardware/software, materials, and workmanship. The warranty shall begin immediately upon Final Government Acceptance of all items delivered under this contract.

The contractor shall establish and maintain a warranty performance system that identifies and documents all items to be warranted under this contract. Each item warranted shall be indexed and identified by serial number, model number, part number, Unique Identification (UID), warranty period, Original Equipment Manufacturer (OEM), and date of acceptance by the Government. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each item shall be provided to the Government in the form of a Warranty Procedures Guide and shall be maintained by the contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and made available for Government review upon request or during

scheduled meetings and/or reviews throughout the life of all warranted items used in all production phases of the ITSC Program.

All costs for shipping and handling for warranted items from and to the field activity are the responsibility of the contractor. The warranty period will cover all hardware, software/firmware, materials, installation services, applicable Software (SW)/Cyber Security (CS) updates, and workmanship provided for the overall system design solution. Hardware/Equipment warranty will include repair and return services for all hardware/equipment replacement that will be configured with software/firmware and ready to install upon receipt.

5.5.5 ENVIRONMENTAL SAFETY AND HEALTH

5.5.5.1 SYSTEMS SAFETY

The contractor shall identify all hazardous material associated to the newly installed equipment and deliver the applicable Material Safety Data Sheet (MSDS) to the Government. The contractor shall identify and evaluate safety and health hazards and define risk levels that manage the probability and severity of all hazards associated with development, use, and disposal of the system in accordance with MIL-STD-882D. Residual risks will be evaluated by the Government in accordance with Tables A-I through A-IV of MIL-STD-882D and reviewed for acceptance or further risk mitigation action IAW the PESHE.

5.6 GREY MARKET ITEMS, LICENSE TRANSFERABILITY, AND END USER TERMS AND CONDITIONS

In order to minimize the risk of the Government purchasing counterfeit products or unauthorized secondary market equipment, which would not be supported by the OEM, and to ensure that the Government purchases only equipment that is genuine (i.e., not counterfeit), authorized (e.g., not gray market, includes appropriate licenses, etc.), and supported (e.g., warranty and support services) by the OEM, when it submitted its proposal, the contractor, for:

Hardware: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of the proposal and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor warrants that all products provided under this contract are new. By submitting any proposal under this contract, contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of contract award. Contractor agrees that it will provide a list of serial numbers for any hardware provided or installed. Failure to provide this information may result in delays to acceptance and payment. The Government will use this information to confirm with the Manufacturer or OEM that the hardware is (1) genuine (not counterfeit) and (2) authorized hardware that has been sourced and provided in accordance with the Manufacturer's applicable policies (e.g., not gray market or diverted). If the Manufacturer indicates that the hardware meets these two requirements, the Government will notify the contractor. If the Manufacturer indicates the hardware does not meet these two requirements, the Government may reject the hardware, revoke acceptance, or pursue any other available and appropriate remedies under the contract.

Software: Certifies that it is a Manufacturer Authorized Partner/Reseller as of the date of award and that it continues to have the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, to the extent required by the applicable PWS, and in accordance with the applicable Manufacturer certification/specialization requirements. Unless otherwise specified, contractor shall warrant that all products are new, or, in the case of downloadable software, that all software is sourced from the OEM or Authorized Reseller. By submitting its proposal contractor confirms that it has sourced all Manufacturer products it will provide from Manufacturer or through Manufacturer Authorized Partners only, in accordance with Manufacturer's applicable policies in effect at the time of this contract. Contractor shall certify that it has notified the software Licensor that the United States Marine Corps (Buyer) will be the Licensee. Contractor shall have provided, with any proposal, a copy of the End User license Agreement (EULA), Terms of Service (TOS), or other similar legal instrument or agreement and warrants that all Manufacturer software is or will be licensed originally to Buyer as the original Licensee authorized to use the Manufacturer Software. Note the provisions of FAR 52.212-4(u) apply.

Maintenance: If, during performance of any maintenance required under this contract, the contractor provides replacement hardware or software, then the above Hardware, Software, or both requirements, including all required certification and compliance requirements, apply. The contractor shall ensure that the Government shall have full rights and entitlements to any software maintenance procured under this contract for software for which it has been identified as the original licensee or for which a license is subsequently transferred to the Government.

Hardware, Software, and/or Maintenance: If the contractor is not a Manufacturer Authorized Partner as of the date of the submission of its proposal then, as applicable, contractor shall submit with its proposal a document, from the Manufacturer, that identifies the Vendor by name and states the following:

- (1) That the products proposed (including hardware, software, and/or support services) are genuine (i.e., not counterfeit and not unauthorized secondary market/gray market products) (note: all items, including part numbers where applicable, shall be listed in the document);
- (2) That contractor has the certification/specialization level required by the Manufacturer to support both the product sale and product pricing, in accordance with the applicable Manufacturer certification/specialization requirements;
- (3) That contractor will be able to receive from Manufacturer, and that Manufacturer will not deny, the support services required to support the product(s);
- (4) That contractor has the authority to transfer to the Government all appropriate software licenses associated with the product(s) at no additional cost to the Government; and
- (5) That Manufacturer will not deny required warranty support for the product(s).

The Government's remedies for the contractor's failure to provide conforming products or services consistent with the above requirements are detailed in FAR 52.212-4, with emphasis on paragraphs (a), (m), and (u).

This contract contains the clauses, terms, and conditions acceptable to the Government. Any hardware, software, or maintenance provided under this contract that contains conflicting terms or conditions, including but not limited to an EULA, Software License Agreement (SLA), Purchaser

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User Rights (PUR), Product User Rights (PUR), Software User Rights Agreement (SURA), Support Agreement, Maintenance Agreement, or any other vendor or OEM-specific agreements regardless of how titled or described, may be considered unacceptable. The contractor is on notice that if they choose to submit a document containing terms and conditions, they are required to demonstrate that those terms and conditions do not conflict with, or differ from, this contract's terms and conditions, as well as any statute or regulation (e.g., FAR and DFARS). The contractor must provide the Government with an opportunity to review, modify, and approve any relevant EULA, SLA, SURA, PUR, or any other similar OEM-specific agreement, related to items procured under this contract for which the Government will be the licensee or will otherwise take title to. Compliance with this section is a component of technical acceptability for any proposal and for final project acceptance. Vendor-specific or OEM-specific terms and conditions that conflict with statutory or regulatory requirements, or are otherwise disadvantageous to the Government as noted above, may be determined unacceptable.

5.7 DELIVERABLES

5.7.1 TECHNICAL DATA PACKAGE

The contractor shall develop a TDP that contains Engineering Design Plan (EDP), design specifications, and drawings describing and depicting the solution and configuration of all systems and subsystems delivered in support of MCB Quantico's Contract. The review and acceptance process for all design specifications and drawings include a Conceptual Design data package, Developmental Design data package, Production Design data package, Redlines Drawings and As-Built Drawing package. The format for the TDP will be provided to the contractor by the Government at the Contract Kickoff meeting. The TDP shall consist of the Engineering Design Plan, Engineering Design Drawings, Systems Configuration Hardware/Software Baseline (CMDB File), and Materials and Equipment List to include Long Lead Items List. All increments of the TDP shall be delivered in accordance with the timelines identified in Figure 1 and the criteria outlined in Part 8, Technical Exhibit 2, Deliverables Schedule and IAW MIL-STD 31000B, ASME Y14.100, ASME Y14.24, ASME Y14.35M, and ASME Y14.34M.

The contractor shall document all design modifications and/or revisions to the accepted Production Design Data TDP via an ECP IAW the CMP. The ECP shall include updated the Red-line Engineering Design Package that accurately depicts the proposed engineering change. Revisions to the Redline drawings shall be provided every thirty (30) calendar days and previous drawing revisions implemented to produce an updated version. The Redline TDP will be used to perform the Physical Configuration Audit (PCA). Any changes to the redlined drawings and/or CMDB file will be recorded during the PCA and documented in the As-built TDP. The contractor shall provide the As-built TDP at the completion of the project at the Project Closeout Review (PCR) and incorporate all design changes and modifications performed during the implementation.

The contractor shall deliver a Draft CMDB File along with all other required artifacts of the TDP IAW Figure 1 - Contract Notional Timeline as part of the Technical Review Data Package for the Technical Interchange Meeting (TIM), that contains all relevant information about the hardware and software/firmware components provided in the accepted engineering design and the relationship between those components. The contractor shall deliver the Final CMDB file along with all other required artifacts of the TDP as part of the TRDP for the NIR. The CMDB provides an organized view of configuration data and a means of examining that data from multiple perspectives. The

CMDB File shall identify all Configuration Items (CIs) delivered under this contract and the associated information and the interface between system components.

As part of the Materials and Equipment List, the contractor shall provide the OEM recommended minimum essential spare parts for systems provided under this PWS in order to alleviate system downtime in the event of a critical hardware failure. The minimum essential spares shall be identified separately in the Materials and Equipment List. The contractor shall restock any spare parts utilized during the modernization effort and warranty period.

5.7.1.1 PRODUCT DRAWINGS AND ASSOCIATED LISTS

The contractor shall develop and deliver a TDP with the associated lists and artifacts describing and detailing the installation and configuration of all systems and subsystems delivered in this contract. This process may require the revision and update of existing drawings, and/or development of new drawings to meet the requirements of TDP drawings and associated lists. Only FINAL versions of the Conceptual, Developmental, Production, Redline, and As-Built data packages will be considered for acceptance by the government and represent fulfillment of the deliverable requirements. Existing, revised, new product drawings, and associated lists shall be used as the engineering data for procuring, controlling, using materials, parts, and assemblies whether produced in-house or supplied by the contractor. The drawings shall be used for the manufacture, assembly, provisioning, inspection, testing, and Configuration Management (CM) of the materials, parts, modules, subassemblies, assemblies, and product baseline of the hardware and software delivered in this contract. The TDP and associated lists shall not carry any proprietary markings. The contractor shall provide the necessary design, engineering, manufacturing, and quality assurance requirements necessary to enable the procurement or manufacture of an interchangeable item that duplicate the physical and performance characteristics of the original product. This must be accomplished without any additional design engineering effort or recourse to the original design activity.

- 1. The contractor shall comply with MIL-STD-3100B, “Technical Data Packages”.
- 2. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
- 3. The contractor shall comply with DoDI 5230.24 and DoDM 52000.01-V4 to apply proper Document Marking to the drawing package.
- 4. The contractor shall comply with the ASME Y14 Standards and lessons learned to improve the use of the Title Block, Revision Block, Sheet Numbering, and add Parts Lists and a Master Parts List Drawing Type.
- 5. The contractor shall comply with Installation Design Plan (IDP) drawing codes. (shown in [Table 3Table 3](#)).

Table 3 – Engineering Design Drawing List

IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
DT	DT	Drawing Tree	D, P, RL, AB
000	000	Functional Interface Diagram (Architecture Drawings)	D, P, RL, AB
010	000	Site Master Index	D

IDP DRAWING CODE	ASME CODE	DRAWING TYPE NAME	TDP STAGE
020	200	Installation Master Drawing	D, P, RL, AB
022	100	Master Parts List	D, P, RL, AB
023		Technical Data Summary	D, P, RL, AB
040	400	Floor Plans and Elevations	D, P, RL, AB
050	400	Antenna Layouts and Elevations	D, P, RL, AB
060	500	Simplified Block Diagrams	D, P, RL, AB
070	500	Cable Block Diagrams	D, P, RL, AB
090		Cross Connect Records	P, RL, AB
100		Distribution Frame Layout	D, P, RL, AB
110	600	Circuit Diagrams	D, P, RL, AB
120	600	Labeling Details	P, RL, AB
130	600	Patch Panel Layouts	P, RL, AB
140		Power Distribution	D, P, RL, AB
160	300	Cable Routing Layouts	D, P, RL, AB
171	700	Mechanical Assembly and Mounting Details	D, P, RL, AB
180	800	Miscellaneous Installation Details	D, P, RL, AB
190		Miscellaneous System Configuration Details	D, P, RL, AB
LEGEND C–Conceptual, D-Developmental, P-Production, RL- Red Line, AB-As Built			

5.7.2 SYSTEMS ACCEPTANCE TEST PLAN

The contractor shall prepare a Systems Acceptance Test (SAT) Plan that encompasses all system and sub-system test activities planned for each system. The following areas shall be emphasized in the SAT Plan: Test Event, Purpose of the Test, Date of Test (Start and End), Location of the Test, Need for Government Test Support, Schedule of Individual Test Events, and Test Procedures.

5.7.3 TEST PROCEDURES, TEST CASES, TEST SCRIPTS

The Test Procedures, Test Cases, Test Scripts (TPTCTS) aligns with the SAT and GAT Plans; identify how each system is integrated, tested, and meets the specified system requirement. The TPTCTS shall include the following: Test Event; Test Diagram; Purpose of the Test; Test Entrance Criteria; Date of Test (Start and End), Location of the Test; Need for Government Test Support; Met, Not Met, or Met With Exception Criteria; and signature block for the Test Operator and Government Witness.

The Contractor shall provide TPTCTSs, as individual appendices to the SAT Plan for each system and sub-system delivered under the PWS. The Test Procedures shall include all test cases and test scripts to demonstrate all system and sub-systems meet the specific requirements of the PWS.

5.7.4 REQUIREMENTS TRACEABILITY MATRIX

To ensure compliance with all requirements, the Contractor shall develop and deliver a Requirements Traceability Matrix (RTM) that traces all requirements defined in the PRS and site-specific requirements. The RTM shall allocate components and subsystems and identify the testing method (analysis, inspection, test, demonstration) to validate the contractors proposed system design for Government acceptance.

5.7.5 CUTOVER PLAN

The contractor shall develop a detailed Cutover Plan. The Cutover Plan shall provide the overall plan including the schedule, required Government resources, system outages, and fall back plan. In addition, the plan shall contain the system specific detailed procedures.

The contractor shall develop a detailed Cutover Plan for each system and subsystem. The Cutover Plan shall be system specific and shall include, at a minimum, a sequential list of events, detailed procedures, post-Cutover testing requirements/procedures, scheduled service outages/windows, service priority based cut-sheets, and system recovery/fall back plan. The Cutover Plan including any modifications must be accepted by the Government prior to commencement of cutover. Cutover shall not begin without a Government acceptance of the proposed cutover plan.

6 TRAINING

6.1 NEW EQUIPMENT TRAINING

All New Equipment Training (NET) shall be provided by the OEM and/or OEM certified trainers utilizing the Government approved course of instruction. NET shall consist of courses for administrators, operators, and maintainers (when deemed necessary). The contractor shall detail their training plan in their proposal. Where eLearning or web-based courses are involved a remote registry (user name and password) must be provided to the receiving units for access to the OEM courses. The courses shall not be more than eight hours in length each day and will be conducted Monday through Friday during normal business hours. Following completion of NET, Government approved comments received from attendees (Instructor Rating Forms, End of Course Critiques) shall be incorporated into the course to yield an improved product. The training shall be of sufficient depth and shall include "hands-on" time with the system to ensure that personnel are qualified to teach others (train the trainer concept) and to safely perform tasks in the intended operational environment. Training materials shall be provided IAW the requirements in Section 6.1 - Training and [Table 4 - Training Deliverables Matrix](#).

Table 4 – Training Deliverables Matrix

Item Number	Item Title	Due	Deliverable Format
1	Training Plan	Initial: NLT twenty-five (25) calendar days prior to the NIR. Final: NLT twenty-five (25) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
2	Training Materials	NLT twenty-five (25) calendar days prior to the start of training.	Contractor Format (PDF or Microsoft Office Word 2016 or later)
3	Training Material Updates	As required.	Contractor Format

6.2 TRAINING PERFORMANCE AND EVALUATION

The ITSC Logistician and Manpower and Training (MPT) Lead will observe and evaluate the first instance of each training session. The contractor shall update the training materials (if applicable) in preparation for the next training event according to the comments received from attendees and MPT Lead's evaluations, recommendations, and comments. After each training event, all evaluation materials (tests, instructor rating form, and end of course critique) will be delivered to the MPT Lead for ongoing training analysis. An attendance roster shall be administered for each class substantiating each day of attendance and contain each student's basic information such as first and last name, grade, and Military Occupational Specialty (MOS) or Job Series. This roster shall also include class title(s), date and location, the name of the instructor, and the instructor's employer.

6.3 TRAINING MATERIALS SUSTAINMENT

The contractor shall provide any revisions to the training course materials to each student in hard and soft copy. This includes all training material and technical literature required to teach the course (train the trainer concept) which includes but is not limited to instructor lesson plans, student guides, instructional visual aids, and any tests or practical applications with answer guides.

6.4 TRAINING PLAN

The contractor shall prepare and provide a Training Plan to include strategy, methods, and resources to deliver training. This includes training concepts that incorporate course description, learning objectives, conditions, and standards. The Training Plan shall identify delivery methods, media type, anticipated training time, test, and evaluation. The Training Plan shall identify location, frequency, throughput, mitigated safety risks, classroom facilities, and training schedules.

6.5 TRAINING MATERIALS

All training material shall be prepared per MIL-PRF-29612 and the Systems Approach to Training Manual, NAVMC 1553.1. Materials that fall under parameters of Commercial Off-the-Shelf (COTS) or non-developmental items do not necessarily have to be drafted under the specific templates but have to contain the elements within SAT guidelines.

The MPT Lead shall have fifteen (15) calendar days to review the any training materials submitted by the Contractor in the Training Plan, to ensure compliance with MIL-PRF-29612 and SAT Manual (NAVMC 1553.1) guidance and to provide comments and recommendations to the Logistics Lifecycle (LCL) lead.

7 MANDATORY COMPLIANCE DOCUMENTS AND STANDARDS

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

The following Compliance Documents and Standards are applicable to the design, implementation, and management of this project. The Contractor is responsible to obtain the most current version and also for ensuring a complete knowledge of the applicable documents listed in this section necessary for the successful execution of this project. If conflicts are found to exist between the documents, the Contractor shall report any perceived or actual documentation conflict without delay to the Government. The final interpretation of these Compliance Documents and Standards will be the Government.

1. Marine Corps Systems Command, Statement of Need (SON) for the Marine Corps Base Telecommunications Infrastructure (BTI), MCB Quantico: Marine Corps Systems Command, 2010.
2. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need, MCB Quantico: Marine Corps Systems Command, 2012.
3. Marine Corps Systems Command, Letter of Clarification (LOC) to the Marine Corps Base Telecommunications Infrastructure (BTI) Statement of Need (SON), MCB Quantico: Marine Corps Systems Command, 2013.
4. Marine Corps Systems Command/PMM-110, BTI Program Protection Plan, Quantico: Marine Corps Systems Command/PMM-110, 2013.
5. Marine Corps Systems Command/PMM-110, BTI Test Evaluation Strategy, Quantico: Marine Corps Systems Command/PMM-110, 2013.
6. USMC UC Implementation Plan v 1.0, Oct 9 2013 Unified Capabilities Implementation Plan.
7. MCSC/P IS&I, PMM-110/037-15, Acquisition Decision Memorandum for the Base Telecommunications Infrastructure Program, Quantico: Marine Corps Systems Command, 2015.
8. Department of the Navy (DoN), Next Generation Enterprise Network Capabilities Production Document, v. 1.5.6, 2012.
9. Marine Corps Wide Area Network (WAN) Transport Implementation Plan. Version 1.01 dtd 9 September 2017.
10. Department of the Navy, Unified Capabilities Implementation Plan, Washington, DC Department of the Navy, 2015.
11. Navy UC Implementation Plan Nov 22, 2013 Unified Capabilities Implementation Plan

12. DoN Software Process Improvement Initiative (SPII) Guidebook Department of the Navy Policy for Acquisition of Naval Software Intensive Systems, September 16, 2008.
13. Department of Defense, Defense Acquisition Guidebook (DAG).
14. Defense Information Systems Agency (DISA) Net-Centric Enterprise Services (NCES).
15. Department of Defense/DISA, "JITC UC Document Depot / EMS) Letter of Clarification Template Requirements," 4 May 2016.
16. US DoD System Safety Program, 2009.
17. DoD Information Enterprise Architecture Information Enterprise Architecture, v1.1, May 2009.
18. DoD, Manual For The Operation Of The Joint Capabilities Integration And Development System (JCIDS), 2012.
19. DoD Internet Protocol Version 6 (IPv6) Standard Profiles For IPV6 Capable Products Version 6.0 July 2011.
20. DoD Federal Acquisition Regulation Supplement (DFARS) 252.211-7003 Item Identification and Valuation.
21. DoD/CIO UCF January 2013 Unified Capabilities Framework.
22. DoD Procurement Toolbox, 2016.
23. Department of Defense Architecture Framework (DoDAF) v2.0.
24. Department of Defense/Defense Information Systems Agency Unified Capabilities Framework, Washington: Department of Defense/Defense Information Systems Agency, 2013.
25. DoD, Department of Defense Unified Capabilities (UC) Extensible Messaging and Presence Protocol (XMPP) Errata-1.
26. DoD, Department of Defense Assured Services (AS) Session Initiation Protocol (SIP).
27. DoD Guidance on Protecting Personally Identifiable Information (PII).
28. Federal Information Security Management Act (FISMA) of 2002 Standards and guidance for minimum-security requirements for Information Systems.
29. Modular Open Systems Approach (MOSA), Version 2.0.
30. Security Configuration Guides.
31. Strategic Command Directive 527-1 DoD Information Operations Conditions (INFOCON) System Procedures.
32. VoIP STIG Version 3, Release 15, VoIP Security Technical Implementation Guide.
33. DISA Policy and Guidance.
34. DISA, DoD Telecommunications and Defense Switched Network Security Technical Implementation Guide.
35. Network Infrastructure STIG Version 8, Release 8.
36. The Certificate Issuing and Management Components family of Protection Profiles (PPs).
37. Information Technology Infrastructure Library (ITIL) v3 Foundation Procedures, tasks and checklists used by an organization for establishing a minimum level of competency.
38. USAISEC OSPDPR Outside Plant Design and Performance Requirements (OSPDPR).

39. USAISEC I3A-2010 Technical Criteria for the Installation Information Infrastructure Architecture (I3A).
40. International Building Code (IBC 2015).

7.1 FEDERAL PUBLICATIONS

Publication	Short Title
NIST SP 800-58	Voice Over IP (VoIP) Security
CNSSI 5000	Guidelines for VoIP Computer Telephony
OSHA 29 CFR 1910	Occupational Safety and Health Standards
OSHA 29 CFR 1910.269	Electric Power Generation, Transmission, and Distribution
OSHA, 29 CFR 1926.50	Medical services and first aid
OSHA 29 CFR 1926.403	Safety and Health Regulations for Construction
OSHA 29 CFR 1298	Occupational Safety and Health Standards, Washington: Occupational Safety and Health Administration, 2007

7.2 MILITARY UNIQUE STANDARDS

Publication	Short Title
MIL-STD 130-w/CH 1	Identification Marking of U.S. Military Property
MIL-STD-461	Requirements for the Control of Electromagnetic Interference
MIL-STD-464	Electromagnetic Environmental Effects Requirements for Systems
MIL-STD-810_w/CH 1	Environmental Engineering Considerations and Laboratory Tests
MIL-STD-882	Standard Practice for System Safety
MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-188 124	Grounding Bonding and Shielding
DI-MGMT-81650	Integrated Master Schedule (IMS)
MIL-HDBK-419	Grounding and Bonding
MIL-HDBK-1013/1	Design Guidelines for Physical Security of Facilities

7.3 DoD OPNAV AND MARCORSYSCOM STANDARDS AND REFERENCES

Publication	Short Title
ASTM D3951 - 15	Standard Practice for Commercial Packaging
CJCSI 6510.01	Information Assurance (IA) and Support to Computer Network Defense (CND)
CJCSI 6211.02	Defense Information Systems Network (DISN) Responsibilities
CJCSI 6212.01	Interoperability and Supportability of Information Technology and National Security Systems
CJCSI 6215.01	Policy for Department of Defense (DoD) Voice Networks with Real Time Services (RTS)
CJCSI 6130.01	Master Positioning, Navigation, and Timing Plan
DoD 5000.2	Operation of the Defense Acquisition System
DOD 8420.01	Commercial Wireless Local-Area Network (WLAN) Devices, Systems, And Technologies, November 3, 2017
DoDI 8100.04	Unified Capabilities
DoDI 8500.01	Cybersecurity
DoDI 8510.01	Risk Management Framework for Information Technology
DoDI 5000.64	Accountability and Management of DoD Equipment and other Accountable Property
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 3020.26	Department of Defense Headquarters Continuity Plan (U)
DoDI 6055.11	Protecting Personnel from Electromagnetic Fields
DoDI 5400.16	DoD Privacy Impact Assessment (PIA) Guidance
DoDI 4140.67	DoD Counterfeit Prevention Policy
DoDI 4161.02	Accountability and Management of Government Contract Property
DODI 8010.01	Department Of Defense Information Network (DODIN) Transport
DoDI 8320.04	Item Unique Identification Standards for Tangible Personal Property
DoDD 8500.01	Information Assurance, Mission Assurance Category
DoDD 8500.2	Information Assurance Implementation
DoDD 5000.01	The Defense Acquisition System
UCR 2013	Unified Capabilities Requirements 2013 (UCR 2013) w/CH 2
UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property w/CH 2
UFC 3-301-01	Structural Engineering w/CH 3
UFC 3-310-04	Seismic Design of Buildings
UFC 3-501-01	Electrical Engineering

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Publication	Short Title
UFC 3-520-05	Stationary Battery Areas w/CH 1
UFC 3-520-01	Interior Electrical Systems
UFC 3-575-01	Lightning and Static Electricity Protection Systems
UFC 3-580-01	Telecommunications Interior Infrastructure Planning and Design
UFC 3-580-10	Navy and Marine Corps Intranet (NMCI) Standard Construction Practices
UFC 3-600-01	Fire Protection Engineering for Facilities Change 1
UFC 4-021-02	Electronic Security Systems
UFC 2000 Article 64	Stationary Lead-Acid Battery Systems
UID Guide Version 2.5	Assuring Valuation, Accountability and Control of Government Property
USAISEC – I3A, I3MP	Fort Detrick Engineering Directorate, Technical Guide for I3A and I3MP Grounding and Bonding
USAISEC – I3MP	Fort Detrick Engineering Directorate, Technical Guide for Installation Information Infrastructure Modernization Program (I3MP)
USAISEC – I3A	Technical Criteria for the Installation Information Infrastructure Architecture (I3A)
USAISEC - SIPRNet	Secret Internet Protocol Router Network (SIPRNet) Technical Implementation Criteria
USAISEC, TR No. AMSEL-IE-IS 08014	Enterprise Systems Engineering Directorate, I3MP Guide for Facilities Requirements of Core Communications Nodes
USAISEC, TR No. AMSEL-IE-TI 09-001-7	United States Army Information Systems Engineering Command (USAISEC) Outside Plant Design and Performance Requirements (OSPDPR)
MARADMIN 639/08	USMC CS Vulnerability Management (CSVM) Program
MCBUL 5239	Marine Corps Certification And Accreditation Program
MCO 5239.1	Marine Corps Information Assurance Program (MCIAP)
MCBUL 5234.15	Marine Corps Enterprise Network Microsoft Computer Operating Systems Directive For Windows 10. Server 2012 and Exchange 2013
NAVMC 5100.1	Marine Corps Operational Safety and Health Program
SECNAVINST 5000.2	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

7.4 INDUSTRY STANDARDS AND REFERNCES

Publication	Short Title
ANSI/EIA 310	Cabinets, Racks, Panels, and Associated Equipment
ANSI/TIA 606	Administration Standard for Commercial Telecommunications Infrastructure
ANSI/TIA 568.0	Generic Telecommunications Cabling for Customer Premises
ANSI/TIA 606	Administration Standard for Telecommunications Infrastructure
ANSI/TIA 569	Telecommunications Pathways and Spaces
ANSI/TIA 942	Data Center Cabling Standard
ANSI/TIA-568.3	Optical Fiber Cabling Components
ANSI/TIA- 455-133	Measurement of Fiber or Cable Length Using an OTDR
ANSI/TIA/EIA-455-8-2000	Measurement Methods and Test Procedures – Attenuation OTDR
ANSI J-STD -607-C w/CH 1	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
ANSI Z535.4	Product Safety Signs and Labels
ANSI/BICSI 002	Data Center Design and Implementation Best Practices
ANSI/HFES 100	Human Factors Engineering of Computer Workstations
ANSI/ISEA Z358.1	American National Standard for Emergency Eyewash and Shower Equipment
ANSI/IEEE 142	Recommended Practices for Grounding of Industrial and Commercial Power Systems
ANSI/IEEE C2	National Electrical Safety Code (NESC)
IEEE 802.3	Standard for Ethernet
IEEE 802.3at	IEEE Standard for Information technology - Local and metropolitan area networks - Specific requirements - Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 3: Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements
IEEE 802.3af	IEEE Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications - Data Terminal Equipment (DTE) Power Via Media Dependent Interface (MDI)
IEEE 802.1Q	Virtual Local Area Networks (LANs)
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.3ab	1000BASE-T Gigabit Ethernet

Publication	Short Title
IEEE 802.3z	Gigabit Ethernet Over Optical Fiber and Shielded Twisted Pair (STP)
IEEE 802.3ae	10 Gigabit Ethernet (10 GbE)
IEEE 802.1w	Rapid Reconfiguration of Spanning Tree
IEEE 802.1s	Multiple Spanning Trees
IEEE 802.3ba	40/100 Gigabit Ethernet
IEEE RFC7348	Virtual eXtensible Local Area Network (VXLAN)
IEEE 802.11	IEEE Standard for Information Technology - Telecommunications and information exchange between systems Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
IEEE 1100	IEEE Recommended Practice for Powering and Grounding Electronic Equipment. (IEEE Emerald Book)
IEEE 1106	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1187	IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Storage Batteries for Stationary Applications
IEEE 1188	IEEE Recommended Practice for Installation, Maintenance, Testing, and Replacement of Vented Nickel-Cadmium Batteries for Stationary Applications
IEEE 1189	IEEE Guide for Selection of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
IEEE 1220	IEEE Application and Management of the Systems Engineering Process
IEEE 1471	Recommended Practice for Architecture Description of Software Intensive Systems
IEEE 15288.2	Standard for Technical Reviews and Audits on Defense Programs
MIL-STD 31000 Rev.	Technical Data Packages
ASME Y14.100	Engineering Drawing Practices
ASME Y14.24	Types and Applications of Engineering Drawings
ASME Y14.35M	Revision of Engineering Drawings and Associated Documents
ASME Y14.34M	Associated Lists
IETF RFC 2819	Remote Network Monitoring Management Information Base
IETF RFC 3261	SIP: Session Initiation Protocol

Publication	Short Title
IETF RFC 3410	Introduction and Applicability Statements for Internet-Standard Management Framework
IETF RFC 3418	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
IETF RFC 4346	The Transport Layer Security (TLS) Protocol, Version 1.1
IETF RFC 5709	OSPFv2 HMAC-SHA Cryptographic Authentication
IETF RFC 5798	Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6
IETF RFC 5905 v4	Network Time Protocol Version 4: Protocol and Algorithms Specification
NEMA 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
NFPA 1	Fire Code
NFPA 70	National Electrical Code
NFPA 70	Standard for Electrical Safety in the Workplace
NFPA 72	National Fire Alarm and Signaling Code
NFPA 75	Standard for the Protection of Information Technology Equipment
NFPA 76	Stationary Lead-Acid Batteries
NFPA 101	Life Safety Code
NFPA 110	Standard for Emergency and Standby Power Systems
NFPA 780	Standard for the Installation of Lightning Protection Systems
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems
GR-513-CORE	Power Requirements in Telecommunications Plants
GR-1275-CORE	Central Office/Network Environment Equipment Installation/Removal Generic Requirements
GR 1502-CORE	Central Office/Network Environment Detail Engineering Generic Requirements
GR-3160-CORE-001	Generic Requirements for Telecommunications Data Center Equipment and Space, Jul 2013
UL 96	Standard for Installation Requirements for Lightning Protection Systems
UL 467	Grounding and Bonding Equipment
UL 497	Standard for Protectors for Paired-Conductor Communications Circuits
UL 497	Standard for Secondary Protectors for Communications Circuits
UL 497	Standard for Protectors for Data Communications and Fire-Alarm Circuits
UL 1449	Standard for Surge Protective Devices

Unclassified/For Official Use Only

Publication	Short Title
EIA-625	Requirements for Handling Electrostatic Discharge-Sensitive (ESDS) Device
IFC	International Fire Code
EPA 40 CFR	Protection of Environment: Hazardous Material Inventory and Reporting, Spill Control, Spill Reporting, and Disposal
ISO/IEC/IEEE 8802-15-4	Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 15-4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for low-rate Wireless Personal Area Networks (WPANs)
ITU-T G.655	Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable
ITU-TG.709/Y1331	Interfaces for Optical Transport Network.
ITU-TG.798	Characteristics of Optical Transport Network Hierarchy
ITU-TG 872	Architecture of Optical Transport Networks
ITU-TG 873.1	Optical Transport Network Linear Protection.
ITU-G.694.1	Spectral grids for WDM applications: DWDM Frequency Grid
ITU-G.692.2	Amplified multichannel dense wavelength division multiplexing applications with single channel optical interfaces
LPI 175	Standard of Practice for the Design - Installation - Inspection of Lightning Protection Systems

8 APPLICABLE PUBLICATIONS (CURRENT EDITIONS)

The following documents apply to this Performance Specification. In the event of conflict between the applicable documents and this PWS, the PWS shall take precedence. All documents cited as compliance documents shall be considered as guidance only. Nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained. Appendix A - *MCB Quantico – Site Specific Equipment* provides a listing of the MCB Quantico existing nodes and equipment per site.

Appendix	Document/Reference	Purpose
A	Site Specific Equipment	Provides a listing of the MCB Quantico existing nodes and equipment per site.
B	NCI Systems Engineering Plan (SEP)	Describes the Government's systems engineering process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.

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Appendix	Document/Reference	Purpose
C	NCI Test and Evaluation Management Plan	Describes the Government's test and evaluation process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
D	PM N&I Configuration Management Plan	Describes the Government's configuration management process. The Contractor is expected to have a similar effort that aligns and integrates with the Government's process.
E	NCI Risk Management Plan	Describes the Government's risk management process. The Contractor is expected to have a similar effort that integrates with the Government's risk reporting process.
F	BTI Life-Cycle Sustainment Plan (LCSP)	Describes the Government's sustainment process.
G	BTI Item Unique Identification (IUID) Plan	Describes the Government's equipment accountability requirements and process.
H	PM N&I Programmatic Environmental, Safety, and Occupational Health Evaluation (PESHE)	Describes the Government's Environmental, Safety, and Occupational Health (ESOH) risk management approach (strategy, processes, and procedures) to include the integration of ESOH considerations in the acquisition and systems engineering processes.
I	Quality Assurance Surveillance Plan (QASP)	Describes the method by which the Government will monitor the Contractor's overall performance. The Contractor is expected to satisfy all the requirements of the contract by leveraging the surveillance procedures and methodologies established the QASP.
J	NCI BAN Reference Architecture	
K	NCI UC Reference Architecture	
L	NCI Network Power Reference Architecture	

8.1 GENERAL

The contractor shall develop an engineering design to deliver a turnkey solution that conforms to all the performance requirements specifications in this section of the PWS. The design and operation of the solution is governed by the NGEN Capability Production Document (CPD) and the BTI Statement of Need (SON) and associated Letters of Clarification (LOC). These governing documents include Key Performance Parameters (KPP) which must be maintained throughout the modernization of the communication infrastructure to be performed at MCB Quantico, and are the foundation of the systems design characteristics. Those KPPs are identified in Section 8.1.1. Additional system and subsystem specifications are identified sections 8.2 and 8.3. Specifications governing Site Preparation and Network Power are provided in section 8.4.

8.1.1 SYSTEM-WIDE KEY PERFORMANCE PARAMETERS

Performance Objective	Performance Threshold	Method of Surveillance
KPP-1	Components shall be JITC compliant.	Inspection
KPP-2	The system(s) shall have an operational availability of 99.999%.	Analysis
KPP-3	The system shall have a growth capacity of 25% to support the increase in users without an equipment replacement.	Analysis
KPP-4	Installations with geographically separate Points of Presence (PoP) shall have redundant UC and BAN equipment and services at each CN connected in a split core configuration mirroring the transport boundary.	Analysis

8.2 UNIFIED COMMUNICATIONS SYSTEM

The Regional UC solution shall provide business voice capability to those locations where the solution will be deployed. MCB Quantico shall include all NIPRNet users on MCB Quantico. The Regional UC solution shall support survivability that allows for full failover functionality such that the loss of the UC system at any one nodal location does not result in the loss or degradation of service at that site or any other site where the solution will be deployed. The Regional UC solution shall have a voice mail, voice conferencing, unified messaging, and Telecommunications Management System (TMS) that supports MCB Quantico. The solution shall provide Enhanced 911 (E911)/Next Generation 911 (NG911) services and support local public safety missions using standardized commercial protocols IAW the DoD UCR.

8.2.1 VOICE EQUIPMENT INSTALLATION AND CONFIGURATION

Delivery of voice and data services to the end-user shall be provided over a single physical infrastructure connection (port) at the end-user workstation. Physical connection of the end-user devices when using VoIP shall be connected in series via the phone set. Logical connection for voice and data services shall be accomplished via Virtual Local Area Network (VLAN) or Security Group Tags (SGTs).

Each new line module and gateway shall be fully wired to the MDF and equipped with all required common control and power cards, and connected to the assigned Local Session Controllers (LSCs). The contractor shall EFIST and make operational any new cards required to support a mixture of analog. The contractor shall provide a minimum of one analog gateway per DN as required. The contractor shall also provide a solution that supports all the knowledge workers and associated hardware. The contractor shall furnish and install equipment blocks, vertical frames, cables, Digital Cross-Connect (DSX) panels, etc., to terminate the equipped and wired capacity onto the horizontal side of the MDF or cross-connect. The contractor shall coordinate placement of equipment blocks with the TSO. The contractor shall test all endpoints after installation is complete.

8.2.2 EQUIPPED SUBSCRIBER PORT CAPACITY

The equipped subscriber port capacity shall be fully licensed, assigned, and activated at the time of cutover. Equipped line cards shall be distributed evenly across all media gateway shelves and line modules to prevent an outage of ports of the same type in the same workspace in the event of hardware

failure. The contractor shall build temporary subscriber test lines of all equipped types on each line card module or drawer for testing equipment dial tone during System Acceptance Test (SAT).

8.2.3 WIRED SUBSCRIBER PORT CAPACITY

The wired subscriber port capacity shall be provided as pre-wired hardware (i.e., shelves, drawers, common control circuit packs, etc.) and have the ability to be activated only through the use of basic switch translations and the installation of subscriber port modules and circuit packs.

8.2.4 REPLACEMENT PHONE SETS

The contractor shall provide replacement phone sets at the time of systems cutover. The replacements are provided to support the operations and maintenance of the voice network after Government acceptance. The quantity of replacement phone sets to be delivered shall be determined by the verified end-user requirements.

8.2.5 KEY SYSTEMS ATTRIBUTES

8.2.5.1 REGIONAL UC SYSTEM

Performance Objective	Performance	Method of Surveillance
UC-1	The Regional UC system shall provide IP and analog voice services to each end-user on all Installations within the region.	Inspection
UC-2	The Regional UC shall provide the ability to call between regional end-users without using the softswitch backbone.	Analysis
UC-3	Voice services include business voice, voice conferencing, voice mail, and unified messaging.	Inspection
UC-4	The UC system shall have a Telecommunications Management System (TMS) that supports all the Installations within the region.	Inspection
UC-5	Support the Differentiated Service Code Points (DSCP) markings to implement QoS/CoS.	Inspection
UC-6	Provide native audio Mean Opinion Score (MOS) of 3.8, at a minimum, IAW the Telecommunications Industry Association (TIA) Telecommunications – IP Telephony Equipment – Voice Quality Recommendations for IP Telephony (TSB-116-A).	Inspection
UC-7	The UC System shall support to the maximum extent possible end-user VoIP services	Inspection

8.2.6 MAJOR FUNCTIONAL REQUIREMENT

8.2.6.1 LOCAL SESSION CONTROLLER

Performance Objective	Performance	Method of Surveillance
LSC-1	A UC system shall consist of LSCs and Media Gateways as required at each B/P/C/S.	Inspection
LSC-2	LSCs installed at each Installation as defined above shall conform to the requirements for Assured Services Core Session Controller as defined in the UCR 2013 w/Change 2.	Inspection
LSC-3	Each LSC shall interface with the other LSCs in its region in a coordinated cluster to provide full failover capability across Installations.	Inspection
LSC-4	Each LSC shall provide local survivability in the event DISN connectivity is lost.	Inspection
LSC-5	Each LSC shall support local session management when in a disconnected state.	Inspection
LSC-6	Each LSC shall support on Base E911/NG911 routing to the PSAP or ERC, via existing Installation infrastructure.	Inspection

Performance Objective	Performance	Method of Surveillance
LSC-7	The UC systems shall provide both DSN and PSTN Directory Number assignments for each subscriber.	Inspection
LSC-8	Automatic Call Distribution (ACD) shall be provided at the region.	Inspection
LSC-9	Supported Users can utilize softphones through secure VPN from any remote location.	Inspection

8.2.6.2 SESSION BORDER CONTROLLER

Performance Objective	Performance	Method of Surveillance
SBC-1	SBCs shall be co-located and configured in a redundancy group.	Inspection

8.2.6.3 TELECOMMUNICATIONS MANAGEMENT SYSTEM

Performance Objective	Performance	Method of Surveillance
TMS-1	The TMS will be located at MCB Quantico.	Inspection
TMS-2	The TMS shall have a direct interface to Remedy for asset tracking.	Inspection

8.2.6.4 CUSTOMER SERVICE SUPPORT APPLICATION

Performance Objective	Performance	Method of Surveillance
CSSA-1	Customer Service Support Application (CSSA) shall be provided at the region.	Inspection
CSSA-2	CSSA shall provide call routing via Interactive Voice Recognitions (IVR) for management, administration features.	Inspection
CSSA-3	CSSA shall support 400 agents.	Inspection
CSSA-4	CSSA shall have a built in “heat map” to allow scheduling during peak usage vice time of day.	Inspection

8.3 BASE AREA NETWORK

The BAN at MCB Quantico shall be developed in accordance with the reference architecture shown in Figure 2 or Figure 3 and interface with the MCEN Core Switches. The BAN consists of DNs and Edge Access Devices logically connected as depicted in Figure 2 or Figure 3. A DWDM system shall be EFIST'd. They shall provide connectivity between the core nodes and the distribution nodes. Connectivity to the end-user will be accomplished over traditional Ethernet switches and Edge Access Devices or Optical Network Terminals (ONT) located in EUBs. The BAN shall satisfy all the KSA and the Major Functional Requirements identified the following sections.

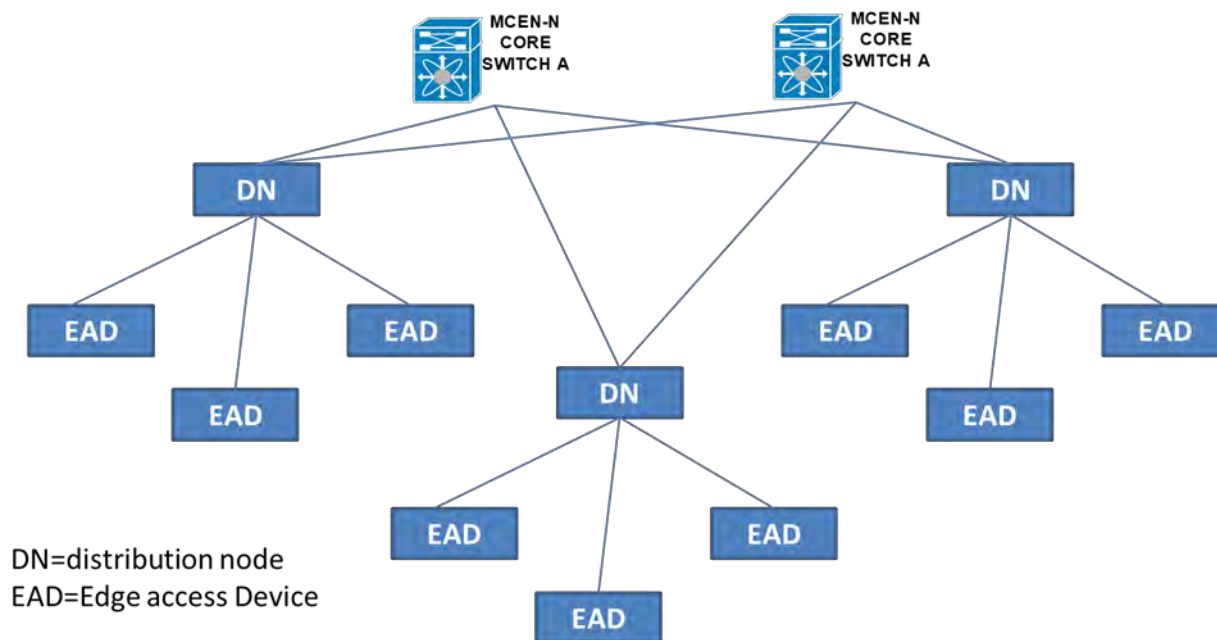


Figure 2 – BAN Reference Architecture

8.3.1 KEY SYSTEMS ATTRIBUTES

8.3.1.1 Base Area Network

Performance Objective	Performance	Method of Surveillance
BAN-1	Voice, video and data shall be converged on the single installation BAN.	Inspection
BAN-2	The BAN shall support multi-tenancy on the single installation infrastructure.	Inspection
BAN-3	The BAN shall be operated from a single management system executed from a centralized Network Operation Center (NOC) on MCB Quantico.	Inspection
BAN-4	The BAN shall operate within the constraints of the Installation Gateway.	Inspection

8.3.2 MAJOR FUNCTIONAL REQUIREMENT

8.3.2.1 WAVELENGTH DIVISION MULTIPLEXING

The Optical Transport System (OTS) for the Backbone Transport shall be comprised primarily of DWDM technology to include all equipment and components to make a complete and functional Wave Selectable Switch (WSS) Reconfigurable Optical Add/Drop Multiplexers (ROADMs) nodal network elements. The OTS may include Course Wavelength Division Multiplexing (CWDM) technology in those instances in which a point-to-point connection is required between nodes with limited circuit requirements such as a linear spur to a node in a remote location or Installations that have two CNs, only. The contractor shall leverage existing optical fiber to provide a full or partial mesh topology with no single point of failure.

Performance Objective	Performance	Method of Surveillance
WDM-1	The WDM shall provide sufficient network degrees at each node to support the topology plus one spare degree.	Inspection
WDM-2	The WDM shall provide an integrated wave selectable switch Reconfigurable Optical Add/drop Multiplexer (ROADM) to support all the nodes.	Demonstration
WDM-3	Each degree shall transmit a minimum of 40G wavelengths on the initial configuration.	Test
WDM-4	The DWDM solution shall seamlessly interface and function via a single management system with the existing DWDM systems currently installed on MCB Quantico.	Inspection
WDM-5	Path protection shall be implemented to provide high availability to each node.	Inspection

8.3.2.2 PASSIVE OPTICAL NETWORK (PON)

A PON network is a converged transport schema that is designed to carry multiple services such as VoIP, Data, IP Video, and Radio Frequency (RF) Video. The common PON operational framework technologies in use are Ethernet PON (EPON), Broadband PON (BPON) and Gigabit PON (GPON). GPON conforms to the ITU T G984 series (G.984.1 through G.984.7) and provides bit rates above 1 Gbps. EPON conforms to the IEEE 802.3ah and 802.3av specifications with options for 1/1 Gbps 10/1 Gbps and 10/10 Gbps.

At a high level, a PON consists of a head-end device called an Optical Line Terminal (OLT). The OLT may be deployed at the Distribution (e.g., Main Communication Node or Area Distribution Node), and Access (e.g., End User Building) Layers. End user endpoints are equipped with ONTs that provide Ethernet, 2-wire analog Plain Old Telephone Service (POTS), and even RF video. As many as 64 (and in some cases more) ONTs connect to a PON port via a single, single mode fiber whose optical signals are combined at a passive splitter. A PON utilizes Wavelength Division Multiplexing (WDM), using one wavelength for downstream traffic and another for upstream traffic across one single, single-mode

fiber optic cable. The PON specifications provide downstream traffic to be transmitted over a single fiber on the 1490 nanometer (nm) wavelength and upstream traffic to be transmitted at 1310 nm. A third 1550 nm band is allocated for overlay services, in this case, RF (analog) video.

In PON, power to the ONT is not provided via the fiber network. If power would be needed, it is provided via copper (which could be included with fiber in the network cable). Power to the ONT can be deployed in two ways, local and remote. Remote power can be provided as centralized or distributed DC plants. Centralized DC plant requires NEC Class 1 compliant cabling while Distributed DC plant requires NEC Class 2 compliant cabling.

The distributed remote power is provided by the power unit installed at the communication closet. This enables the PDU to provide power to the desktop for the ONTs using existing copper cabling that had previously been used to provide Ethernet signal to the desktop. Since this unit is modular, it can be expanded as the needs of the zone grows. This PDU must be able to provide the proper wattage to power not only for the ONT, but also the Power over Ethernet (PoE) powered devices connected to the ONT. If existing catX cables are not available, then independent x/2 cables or composite fiber and copper pair cables can be used.

Figure 3 displays PON Connectivity in the DoD operational framework, and shows a typical installation utilizing the OLT in the Distribution (ADN) and Access (EUB) Layers of the DoD UC model.

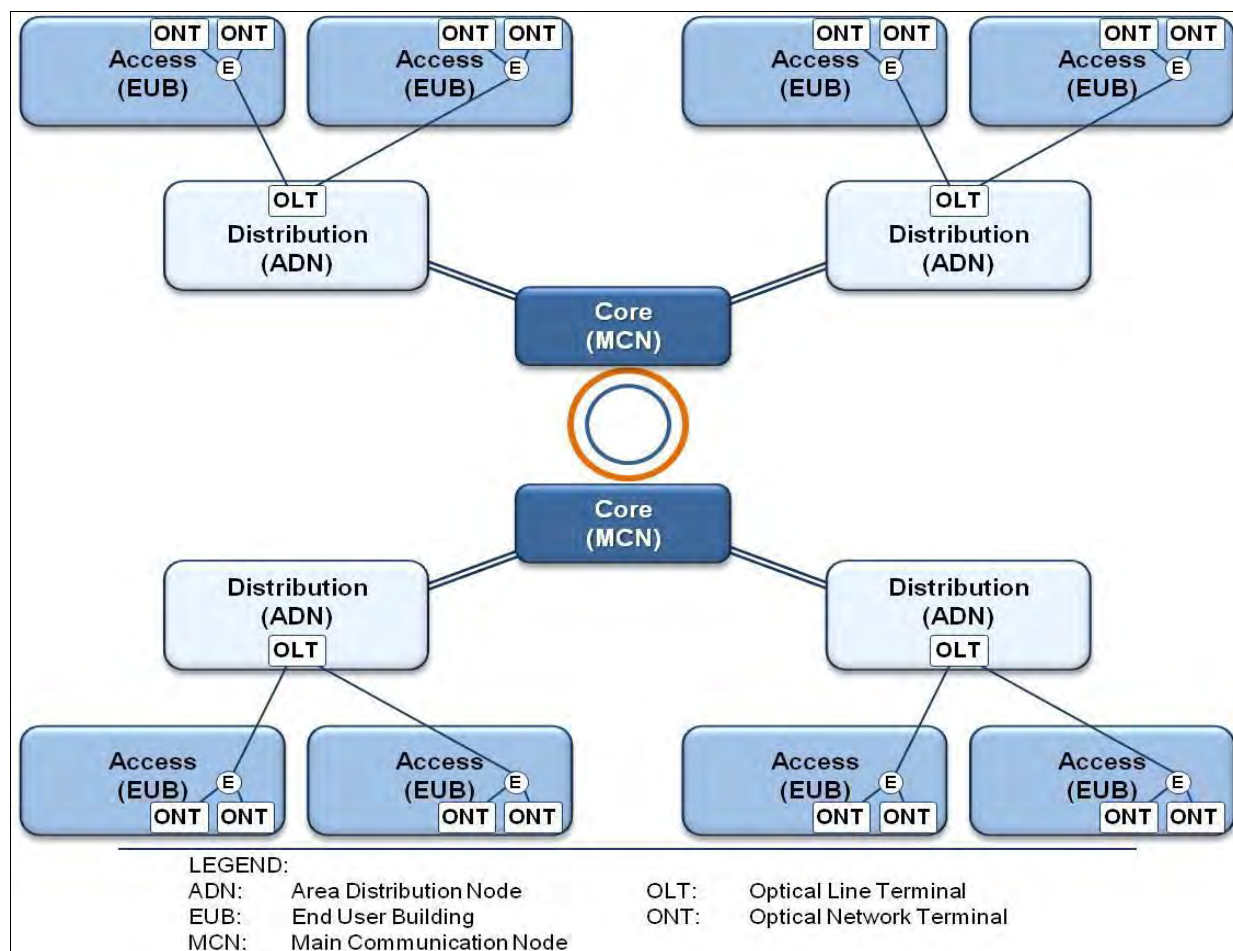


Figure 3-PON Reference Architecture

Performance Objective	Standard	Performance	Method of Surveillance
REQ001	N/A	To ensure Quality of Service (QoS), all ITSC materiel solutions must provide Differentiated Services mechanisms.	N/A
	UCR EDG-000160	The system shall provide Differentiated Services mechanisms to ensure QoS.	Analysis
	Derived	The system shall provide different priority levels for users.	Analysis
	Derived	The system shall provide different priority levels for data flows.	Analysis
	UCR EDG-000090	The Core and Distribution products shall be capable of accepting any packet tagged with a DSCP value (0-63) on an ingress port and reassign that packet to any new DSCP value (0-63)	Analysis

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	Passive Optical Network shall be capable of supporting the prioritization of aggregate service classes with queuing. Queuing may be supported as Layer 2 or Layer 3 class of service (CoS).	Analysis
REQ002	N/A	Support network "slices" in campus/base environments, which enable IT managers to segment the network for specific needs.	N/A
	Derived	The solution shall support multi-tenant network services	Analysis
	Derived	The solution shall support the capability of varying agencies communicating with one another, without mixing traffic flows.	Analysis
REQ003	N/A	Support Dynamic Bandwidth Allocation and Throttling, which enable IT managers to better manage the SLA.	N/A
	Derived	The solution shall support Dynamic Bandwidth Allocation and Throttling	Demonstration
REQ004	N/A	Provide support of standard protocols to build a PON network infrastructure – NNI Interface	N/A
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR EDG-000410	The solution shall support 1000 Mbps IAW IEEE 802.3z for the NNI interface	Analysis
	UCR EDG-000600	The solution shall support Rapid Configuration of Spanning Tree IAW IEEE 802.1w	Analysis
	Derived	The solution shall support Link Aggregation IAW IEEE 802.1AX (formerly 802.3ad)	Analysis
REQ005	N/A	Provide support of standard protocols to build a PON network infrastructure – OLT to PON Interface	N/A
	UCR EDG-000610	The PON system shall provide one of the following PON (OLT-ONT) technologies: a. GPON IAW G.984 series (G.984.1 through G.984.7). b. EPON IAW 802.3ah. (1 Gbps). c. GEAPON IAW 802.3av (10 Gbps)	Analysis
REQ006	N/A	Provide support of standard protocols to build a PON network infrastructure – UNI Interface	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	Derived	The solution shall support Virtual Local Area Network (VLAN)	Demonstration
	UCR SEC-001760	The solution shall support Port-Base Access Control IAW 802.1x	Analysis
	UCR SEC-000080	The solution shall provide Link Layer Discover – Media Endpoint Discovery IAW ANSI TIA 1057	Analysis
	UCR SEC-000080	The solution shall support Auto-negotiation IAW IEEE 802.3	Analysis
	Derived	The solution shall support Power over Ethernet (PoE) IAW either 802.3af-2003 or 802.3at-2009	Demonstration
REQ007	N/A	Provide support of standard management protocols	N/A
	Derived	The solution shall support SNMP V3	Demonstration
	UCR EDG-000820	The solution shall support Secure Shell Version 2 (SSHv2)	Demonstration
	UCR EDG-000840	The solution shall support HTTPS.	Demonstration
REQ008	N/A	Provide support for Voice Services	N/A
	UCR EDG-000720	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG-000730	Jitter - The PON shall have the capability to transport prioritized voice IP packets across the PON SUT	Test and Analysis
	UCR EDG-000740	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ009	N/A	Provide support for Data Services	N/A

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 000780	Latency - The PON shall have the capability to transport prioritized voice IP packets, media, and signaling end-to-end (E2E) across the PON System Under Test (SUT) as measured under congested conditions.	Test and Analysis
	UCR EDG- 000790	Actual Packet Loss - The PON shall have the capability to transport prioritized IP packets across the PON SUT with packet loss not to exceed configured traffic engineered (queuing) parameters.	Test and Analysis
REQ010	N/A	Support network "scaling" in campus/base environments, which enable IT managers to upgrade network infrastructure without service interruption.	N/A
	Derived	The solution shall support add change move of the network device without the service interruption.	Demonstration
	Derived	The solution shall support unique node upgrade in distribute systems without influence on the whole system.	Analysis
REQ011	N/A	Provide redundancy in PON network.	N/A
	UCR EDG- 000990	PON shall have no single point of failure that can cause an outage of more than 96 IP telephone subscribers.	Analysis
	UCR EDG- 001020	PON shall support a Layer 2 Dynamic Rerouting protocol. Failover shall occur in no more than 1 second.	Demonstration
REQ012	N/A	Provide centralized management and monitoring of the PON	N/A
	Derived	The solution shall provide centralized management to leverage automated tools to provision, configure and manage PON network	Analysis
	Derived	The solution shall abstract all of the complexities and dependencies and provide the user with a simple set of GUI tools to easily manage and operate the entire network.	Demonstration
	Derived	The solution shall provide database backup and restore	Demonstration

Performance Objective	Standard	Performance	Method of Surveillance
	UCR EDG- 001110	The PON product shall support Fault, Configuration, Accounting, Performance, and Security (FCAPS) Network Management functions	Demonstration
	Derived	The solution shall provide Secured process for downloading and establishing software at the Network Element	Analysis

8.3.2.3 CORE AND DISTRIBUTION NODES

Performance Objective	Performance	Method of Surveillance
ADN-1	Node elements shall have a minimum of 10 Gbps uplinks to the MCEN Core Switch.	Inspection
ADN-2	There shall be two BAN core routers located in Bldg. 1999 and Bldg. 24204.	Inspection
ADN-3	The BAN core routers shall be configured in active-active configuration.	Inspection
ADN-4	The BAN core routers shall perform all BAN routing.	Inspection
ADN-5	The BAN core routers shall support MPLS.	Inspection
AND-6	DN elements shall have a minimum of 10 Gbps uplink to the Core element	Inspection

8.3.2.4 EDGE ACCESS DEVICE

Performance Objective	Performance	Method of Surveillance
EAD-1	Edge Access Devices that are connected to DN's shall have a minimum of 1 Gbps uplinks to the DN if there are 194 or less access ports on stacked or downstream connected access switches.	Inspection
EAD-2	Edge Access Devices that are connected to DN's shall have a minimum of 10 Gbps uplinks to the DN if there are 195 or more access ports on stacked or downstream connected access switches.	Inspection
EAD-3	Edge Access Devices shall have uplink diversity and redundancy when allowed by the outside plant.	Inspection
EAD-4	Edge Access Devices shall have a minimum of 10 Mbps end-user interfaces.	Inspection

Performance Objective	Performance	Method of Surveillance
EAD-5	Edge Access Devices shall have a minimum 10 Gbps interface to the Wireless Access Point (WAP).	Inspection
EAD-6	Edge Access Devices shall support POE+.	Inspection

8.4 SITE PREPARATION

Site preparation will be provided on an as needed basis at CNs and DN nodes only. See par 5.1.3.

8.4.1 KEY SYSTEMS ATTRIBUTES

Performance Objective	Performance	Method of Surveillance
SP-1	The Network Power System shall provide sufficient uninterruptable AC and DC power to support all IT systems and components located in the facility.	Analysis
SP-2	The Network Power System shall provide sufficient transitional power in the event of loss of shore/commercial power until emergency backup comes on-line.	Demonstration
SP-3	Auxiliary infrastructure shall be installed IAW with all applicable Unified Facilities Criteria.	Inspection

8.4.2 MAJOR FUNCTIONAL REQUIREMENT

8.4.2.1 NETWORK POWER SYSTEM

The contractor shall validate the power requirements at the VSS. If needed, the Government may request that the Contractor provide Network Power Systems at the Core and Distribution Nodes to support all the systems and subsystems delivered as a part of the proposed solution. This Network power systems shall include an AC connection to commercial or shore power, N+1 AC UPS, Automatic Transfer Switch (ATS), self-testing network Emergency Power Off (EPO) switch, battery disconnect switch, and any necessary sub-panels, cabinet or rack power supply buss trackway and Power Distribution Units (PDUs).

Network Power Systems modernization (upgrade/replacement) will be provided on an as needed basis at Installations Core and Distribution Nodes only.

8.4.2.2 NETWORK PANELBOARDS AND SUBPANELS

Performance Objective	Performance	Method of Surveillance
NPS-1	All Network power panels and subpanels shall be 120/208 VAC, 3-phase, Y-connected, with separate neutral and ground conductors.	Inspection

Performance Objective	Performance	Method of Surveillance
NPS-2	Bonding of neutral and ground conductors shall be done in accordance with NFPA 70 and the NEC instruction regarding bonding of neutral to ground in a multi-panel system.	Inspection
NPS-3	AC distribution system wiring shall include a separate copper conductor marked as per NFPA 70 and the NEC instruction installed throughout all branch and feeder circuits.	Inspection
NPS-4	All network AC power panels feeding branch circuits shall be sized for not less than 25 percent growth in circuit breaker quantity.	Analysis
NPS-5	Circuit panels and circuit breakers shall not exceed 80% of the nameplate ampacity of the circuit breakers.	Inspection
NPS-6	All circuits for network equipment racks and cabinets shall be dedicated circuits.	Inspection
NPS-7	A self-testing Emergency Power Off switch shall be installed.	Demonstration

8.4.2.3 AC NETWORK POWER

Performance Objective	Performance	Method of Surveillance
ACP-1	A N+1,UPS shall be sized to meet designed systems power capacity, inclusive of the designed system reserve capacity.	Analysis
ACP-2	An UPS shall provide surge protection in a transformer-less topology and non-degenerative filtering for lighting strikes.	Inspection
ACP-3	An UPS shall provide load fault detection and clearing.	Demonstration
ACP-4	An UPS shall provide a harmonic reduction system to detect when harmonics, power factor or phase unbalance are out of limits and automatically corrects to the user-defined set point.	Demonstration
ACP-5	An UPS shall have the capacity to house the batteries in the same cabinet as the UPS for CNs and DNs to save floor space.	Inspection
ACP-6	An UPS shall have a three stage charging process that is capable of extending battery life by 50%.	Test
ACP-7	An UPS shall provide advanced notification prior to battery failure.	Demonstration
ACP-8	An UPS shall have a color touchscreen LCD interface.	Inspection

Performance Objective	Performance	Method of Surveillance
ACP-9	An UPS shall have internal modularity.	Analysis
ACP-10	An UPS shall have an internal maintenance bypass switch.	Inspection
ACP-11	An UPS shall have a UL 924 certification for emergency lighting.	Inspection
ACP-12	An UPS shall be serviceable thru the front of the cabinet. It shall have the ability to be put against the wall or in a corner.	Inspection
ACP-13	An UPS shall be rated an Energy Star Qualified partner with the U.S. Environmental Protection Agency and the U.S. Department of Energy.	Inspection
AACP-14	An UPS shall provide 99% efficiency across the operating load range.	Test
ACP-15	An UPS shall provide double conversion efficiency at 97% or greater.	Test
ACP-16	An UPS shall be equipped with a quick glance from a distance system status, via green/yellow/red LED light panel.	Inspection
ACP-17	An UPS shall be equipped with power monitoring and reporting software that is compatible with HTTP(S), SNMP, MODBUS TCP/IP, Modbus RTU, and BACnet IP protocols.	Inspection
ACP-18	An UPS shall have a safety certification that complies with the UL 1778, UL 924 Emergency Lighting and Power.	Inspection

8.4.2.4 DIRECT CURRENT NETWORK POWER

Performance Objective	Performance	Method of Surveillance
DCP-1	In the event a network component chassis requires DC power, a stand-alone N+1 rack mounted rectifier shall be sized and installed in the same rack to provide the required DC power capacity for that singular chassis component unless the contractor determines another method of providing DC power to be more economical.	Inspection

8.4.2.5 NETWORK POWER DISTRIBUTION SYSTEM

Performance Objective	Performance	Method of Surveillance
NPD-1	PDUs shall have a 3-phase 120/208 VAC four-pole modular track buss way electrical distribution system above each equipment row fed from an UPS.	Inspection
NPD-2	The PDU track buss way power system shall be rated for 225 amps and 600 volts with each equipment row fed from a separate breaker.	Inspection
NPD-3	Each installed PDU track buss way power system shall have metering capabilities for each phase that includes an automatic cycling display that display Voltage, Current, and Power Usage, at a minimum.	Demonstration
NPD-4	A plug-in unit containing a 3-phase, 30-amp circuit breaker and a receptacle or drop-down cord with receptacle shall be installed above each rack as required to accommodate the equipment rack PDU.	Inspection
NPD-5	Equipment racks and cabinets containing equipment with "A" and "B" AC power supplies shall have two (2) plug-in drops and two (2) PDUs provided.	Inspection
NPD-6	Equipment racks and cabinets containing only passive equipment (i.e., unpowered fiber optic patch panels) do not require power drops or PDUs.	Inspection
NPD-7	Each equipment rack or cabinet shall have a combination 120/208 VAC PDU.	Inspection
NPD-8	Each PDU shall have not less than nine (9) IEC 320 standard C13 receptacles.	Inspection
NPD-9	Each PDU shall have not less than three (3) IEC 320 standard C19 receptacles.	Inspection
NPD-10	Each PDU shall have not less than twelve (12) NEMA 5-20 receptacles.	Inspection
NPD-11	Each phase in the PDU shall have a dedicated breaker.	Inspection
NPD-12	Equipment racks and cabinets containing equipment with "A" and "B" power supplies shall have two PDUs provided.	Inspection

8.4.2.6 NETWORK EMERGENCY BACKUP POWER SYSTEM

Performance Objective	Performance	Method of Surveillance
EBP-1	In the event commercial or shore power is interrupted, the UPS batteries shall be sized to provide uninterruptable, transitional power for no less than 30 minutes, +/- 10 percent. If battery size does not meet the +/- 10 percent, prior Government approval will be required. A fully functional generator will be provided by the Government (B/P/C/S) as the sole source of emergency backup power.	Inspection / Demonstration
EBP-2	The batteries shall conform to the Unified Facilities Criteria (UFC) 3-520-05 and the UFC 3-520-01.	Inspection
EBP-3	The battery system shall use Valve Regulated Lead Acid (VRLA) batteries unless Lithium Ion batteries are approved by the Government.	Inspection
EBP-4	VRLA batteries shall be equipped with a battery management system to manage the battery rest and charge cycles to extend their life.	Test
EBP-5	VRLA batteries systems shall be monitored for cell failure.	Test
EBP-6	A keyed battery disconnect switch shall be installed at the exterior of the building adjacent to the entrance or in a location prescribed by the AHJ.	Inspection

8.4.3 AUXILIARY INFRASTRUCTURE

The contractor shall provide auxiliary infrastructure at the CNs and DNPs to support the systems and subsystems delivered as a part of the proposed solution ~~as defined by the Site Specific Requirements~~. Auxiliary infrastructure consists of the following: equipment racks/cabinets, bracing, seismic bracing, patch panels, ladder rack, wire cable tray, cabling, cable management system, cable testing, bonding, and grounding.

8.4.3.1 MDF, IDF, AND BACKBOARDS

Performance Objective	Performance	Method of Surveillance
MDF-1	All additional or newly installed MDF, IDF and Backboards shall comply with the Installation Information Infrastructure Architecture (I3A).	Inspection

8.4.3.2 CABINETS, RACKS, AND PATCH PANELS

Performance Objective	Performance	Method of Surveillance
CRP-1	Equipment cabinets and rack mounting, dimensions, doors separation or clearances, load rating, cooling fans, spare capacities, horizontal and vertical cable management, strain relief, shall conform to UFC 3-580-1.	Inspection
CRP-2	Equipment cabinets shall have a minimum load rating of 200 pounds.	Inspection / Analysis
CRP-3	Equipment cabinets shall be equipped with a lockable, removable mesh doors.	Inspection
CRP-4	Equipment cabinets shall be equipped with factory knockouts.	Inspection
CRP-5	Equipment cabinets and racks shall have an angle support and a minimum of 42 Rack Units (RUs) and be equipped with an integrated, electrically isolated ground bar.	Inspection
CRP-6	Equipment cabinets and racks shall be black or grey in color unless otherwise specified.	Inspection
CRP-7	Patch panels shall be provided and conform to the UFC 3-580-1.	Inspection
CRP-8	Patch panels shall be installed in, or adjacent to, the equipment racks or cabinets housing BAN equipment.	Inspection
CRP-9	TIA/EIA 568A duplex connectors on 19-inch rack-mounted panels shall be used unless otherwise directed.	Inspection
CRP-10	Fiber Optic Patch Panels (FOPPs) shall not exceed four RUs.	Inspection
CRP-11	All fiber-optic patch panels shall utilize pre-terminated tailed 12-strand closet connector housing cassette with SC duplex (unless specified otherwise) UPC ceramic connectors.	Inspection
CRP-12	Single-mode and multi-mode fiber optic cables shall be terminated on separate fiber optic patch panels.	Inspection
CRP-13	Patch panel labeling shall conform to TIA/EIA 606-A.	Inspection
CRP-14	Patch cables of varying lengths matching the patch panel they are connecting to shall be provided.	Inspection
CRP-15	Provide bend-insensitive, pre-terminated patch cords capable of being locked into place to avoid accidental disruption of services or tampering.	Inspection
CRP-16	CAT 6 copper cables shall terminate on EIA 568A 2-RU CAT 6 Certified Output Protection Protocol (COPP) Patch Panels.	Inspection
CRP-17	Copper Patch Cables: Copper patch cables shall be 4-pair, 24 American Wire Gauge (AWG) stranded UTP cable, rated for CAT6, with 8-pin modular connectors at each end.	Inspection

Performance Objective	Performance	Method of Surveillance
CRP-18	Copper patch panels shall consist of eight-position modular jacks with rear-mounted, type 110 insulation displacement connectors, category-rated for the UTP system being installed and arranged in rows or columns on 19-inch rack-mounted panels. Nineteen-inch wall-mounted panels may be utilized when necessary.	Inspection
CRP-19	Each FOPP and COPP shall have horizontal cable management either built into it or as an independent management system.	Inspection
CRP-20	All ironwork, including frames, cabinets, racks, and cable ladder racks, shall be installed IAW local seismic zone requirements and manufacturers specifications.	Inspection
CRP-21	All ironwork including frames, cabinets, racks, and cable ladder racks shall be isolated from any wall (at the anchor point), floors (at the anchor point), or ceilings with approved isolating materials.	Inspection

8.4.3.3 LADDER, WIRE CABLE TRAY, CONDUITS, EMT, PULL, AND SPLICE BOXES

Performance Objective	Performance	Method of Surveillance
LDR-1	A single tier cable ladder or wire tray system shall be provided to support for signal cabling above all equipment, cabinets, racks and the MDF. The signal cabling shall be separated from the power cables by not less than 12 inches. The power cable conduit system shall be located above the signal tier of rack. The cable ladder rack system shall not contact any surface of any equipment cabinets/racks.	Inspection
LDR-2	Ladder, wire cable tray, conduits and EMT, pull and splice boxes dimensions, separation and clearances, fill depth, headroom, fill ratios, bend radius, shall conform to the UFC 3-580-01 and I3A.	Inspection
LDR-3	Pull boxes or splice boxes shall conform to the guidance in I3A 3.6.1.3 and Article 314.28 of the National Electrical Code 2008 (NFPA 70).	Inspection
LDR-4	Twelve-inch wide ladder rack shall be used unless otherwise required.	Inspection
LDR-5	The ladder rack system shall be installed to run the full length of the room and the perimeter of the room. Each perpendicular row shall be arranged over the top of the equipment racks.	Inspection
LDR-6	Plastic or composite wire ways designed for fiber optic cables are permissible.	Inspection

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Performance Objective	Performance	Method of Surveillance
LDR-7	Copper cabling shall not be installed in any dedicated fiber optic wire ways.	Inspection

8.4.3.4 BONDING AND GROUNDING

Performance Objective	Performance	Method of Surveillance
GND-1	Metal cabinets, racks, raceways, ladders, cable trays, enclosures, frames, fittings, EMT, pull boxes, FOC and Copper cable armor, Outside Plant (OSP) Point Of Entry (POE), Building Entrance Terminals (BETs) and other metal noncurrent carrying parts that are able to serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault currents likely to be imposed on them.	Inspection
GND-2	All Bonding, Grounding, Testing and Labeling shall conform to the I3A, ANSI/TIA 607-C, IEEE 1100-2005 Emerald Book, MIL-STD-419A and MIL-STD-188 124B. NFPA 70, and ANSI TIA-942, TIA/EIA-569-B, NEC Article 250 and the UFC-3-580-01.	Inspection
GND-3	A 2-hole non-twisting, irreversible, circumferential compression fittings, with a sight inspection hole lug shall be used to connect all bonding conductors to the TMGB, TGB, cabinet, rack and cable ladders.	Inspection

8.4.3.5 FIRE STOP

Performance Objective	Performance	Method of Surveillance
FSP-1	Any existing or newly created pathway thru walls, ceiling or floors that are utilized shall conform to the fire stop requirements found within the UFC 3-580-01, NFPA70, NEC, I3A.	Inspection

8.4.3.6 ENVIRONMENTAL HAZARDS

Performance Objective	Performance	Method of Surveillance
OSH-1	The contractor shall perform limited asbestos abatement in support of minor-construction work under a non-construction contract IAW with established OSHA standards.	Inspection
OSH-2	The contractor shall be expected to take the appropriate safety precaution IAW with established OSHA standards to continue to perform work in support of minor-construction work under a non-construction contract when lead-based paint is present.	Inspection

8.4.3.7 FIBER AND COPPER CABLING

Performance Objective	Performance	Method of Surveillance
FBR-1	All fiber planned for use between the CN and DN's shall be characterized and if less than manufacturer's requirement the Government will be notified.	Inspection
FBR-2	Plenum cables shall be used in all plenum spaces IAW the NFPA 70, or as directed by the AHJ.	Inspection
FBR-3	OSP FOC or Copper cable that extends past the POE by 50 feet, it shall comply with the NFPA 70 Section 800.113.	Inspection
FBR-4	Cables and wiring between subsystems shall be clearly and permanently labeled and conform to the TIA/EIA-606-A.	Inspection

8.5 EXISTING NODES AND EQUIPMENT

The existing nodes and network and voice equipment is provided in [Table 5](#) and [Table 6](#). There may be additional equipment found during the verification site survey.

Table 5 – Existing Nodes and Equipment – MCB Quantico

Existing Nodes and Equipment									
MCB Quantico	Core 0	ADN1	ADN2	ADN3	ADN4	ADN5	ADN6	ADN7	Russel Knox
	DCO	TBS	-	-	MCU	OCS	Upshur	Weapons	-
Building	1999	24204	3255	3300	2076	2189	26100	27282	27130C
Zone #	8	7	4	5	3	2	-	9	1
PBX	Nortel/Avaya SL100/CS2100 CM6	Tellabs Voice Gateway	-	Nortel RCC2	Nortel RCC2	Tellabs T1000	-	Nortel MGk9	-
Voice Firewall	Secure Logix	-	-	-	-	-	-	-	-
Voice Mail	Nortel	-	-	-	-	-	-	-	-
Conference Bridge	Nortel	-	-	-	-	-	-	-	-
SBC									
Gateways	Avaya G450	-	-	Avaya G450	Avaya G450	-	-	Avaya G450	-
MPLS Routers	JB-CE 1	JB-CE 2	-	-	-	-	-	-	-
SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	SONET Node	-	SONET Node	-
DWDM									
Data Distribution Router	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	CISCO 6500	-	-	-	-
ASLAN Router	Brocade	-	-	-	-	-	-	Brocade	-
GPON OLT	Tellabs 1150	Tellabs 1150	-	-	Tellabs 1150	-	-	Tellabs 1150	-
GPON ONTs - Qty	107	38	-	-	92	-	-	16	-
Data Access Switch - Qty	64	57	35	24	30	22	-	53	2

Table 6 – Existing Nodes and Equipment – Remote Sites

Existing Nodes and Equipment – Remote Sites							
Remote Sites	INHZ	PKWY	SCPA	BAND	BRRK	WNYZ	ANNZ
	NCR	NCR	NCR	HQMC	HQMC	HQMC	HQMC
Data Distribution Router	CISCO 3750		CISCO 3750	CISCO 3750	CISCO 3750	CISCO 2811 CISCO 2911 ES2	-
ASLAN Router	-	-	-	-	-	-	-
GPON OLT	-	-	-	-	-	-	-
GPON ONTs - Qty	-	-	-	-	-	-	-
Data Access Switch - Qty	8	5	1	6	10	5	4

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APPENDIX A – MCB QUANTICO – SITE SPECIFIC EQUIPMENT

Attachment 1 provides the MCB Quantico existing nodes and equipment per site.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>							
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>			
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC			
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM System Security Plan (SSP) and Associated Plans of Action for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A			
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-82247		5. CONTRACT REFERENCE SOW, Section 5.2		6. REQUIRING OFFICE USMC, MCSC			
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION			
8. APP CODE N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES	
					Draft	Final	
						Reg	Repro
<p>16. REMARKS</p> <p>Block 5: Contractor shall provide an SSP in accordance with NIST SP 800-171, indicating whether the Contractor has implemented the security requirements, plans to implement the security requirements, or that the requirement is not applicable. Attached to the SSP shall be a populated POA&M with all outstanding findings discovered during the self-audit describing compliance or non-compliance and plan of action(s) of the total list of security controls. This submission shall be upon award, on a quarterly basis or upon request.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Office 2200 Lester St Quantico, VA 22134</p> <p>Blocks 10-13: The Contractor shall deliver the initial SSP and POA&M (and appropriate extracts thereof) quarterly, or upon Program Management Offices request. The SSP will be reviewed for acceptance by the Government Program Management Office (PMO). The PMO shall be granted full access to validate the information in the Contractor's submission on an ad hoc basis without notice or upon replacement or rotation of the Government PM.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Any further distribution beyond what's listed will be authorized by the Program Management Office (PMO). Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal deliverable, however the Letter of Transmittal should be sent to the PCO to document delivery notification and compliance with this CDRL. Deliver all copies via electronic media where feasible, otherwise deliver in hard copy.</p>				COR	0	1	0
				PCO	0	0	1
				PEO/PfM ISSM	0	0	1
				APM	0	0	1
				15. TOTAL			
G. PREPARED BY Roger Asprer <small>Digitally signed by ASPRER.ROGER.O.1278925001 Date: 2020.06.17 16:32:57 -0400</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259 Date: 2020.06.18 07:32:18 -0400</small>		J. DATE 6/18/2020	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>								
A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>				
D. SYSTEM/ITEM MCB Quantico Modernization		E. CONTRACT/PR NO. M67854-20-C-XXXX		F. CONTRACTOR Technology Trends Group, LLC				
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Cyber Incident Reporting for a Contractor's Internal Unclassified Information System			3. SUBTITLE N/A				
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-XXXXXX (see Appendix 1)		5. CONTRACT REFERENCE SOW, Section 1.6.13		6. REQUIRING OFFICE USMC, MCSC				
7. DD 250 REQ XX	9. DIST STATEMENT REQUIRED D	10. FREQUENCY As Required	12. DATE OF FIRST SUBMISSION As Required	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE Upon Award	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
						Draft	Final	
						Reg	Repro	
<p>16. REMARKS</p> <p>Block 4: Formatting should be in accordance with Appendix 1.</p> <p>Block 5: The Contractor shall report all Cyber Incidents or Compromise related to Controlled Unclassified Information (CUI) on the contractors system/network in accordance to DFARS clause 252.204-7012 to the Damage Assessment Office (DAMO) via the DIB-Net website (http://dibnet.dod.mil) within 72 hours.</p> <p>Block 7: Inspection/acceptance requirements specified elsewhere in the contract.</p> <p>Block 9: DISTRIBUTION STATEMENT D: Distribution authorized to the Department of Defense and U.S. DoD contractors only. (Reason: Administrative or Operational Use) (Date of Determination: DDDMMYYYY). Other requests for this documentation shall be referred to: Marine Corps System Command Program Name 2200 Lester St Quantico, VA 22134</p> <p>Block 10-13: In addition to reporting all Cyber Incidents or Compromises as stated above, the Contractor shall also submit a Cyber Incident Damage Assessment within 72 hours event in accordance with paragraph (d)(4) of DFARS clause 252.204-7012. All information related to Cyber Incidents or Compromises, as defined in DFARS clause 252.204-7012, shall also be relayed to the Defense Cyber Crime Center [dc3.mil] within 15 calendar days of the event. Upon incident, when feasible, the hardware shall not be powered down, but segregated from the network and any Department of the Navy (DoN) CUI separated from contractor-owned information pending investigation.</p> <p>Block 14: Notification of delivery shall be made to Stephen J. Magee, COR. Further distribution will be authorized only by the Program Management Office (PMO) Email addresses for Distribution list POCs: COR: Stephen Magee, Stephen.j.magee@usmc.mil, 703-784-4986 PCO: Brenda Edwards, Brenda.edwards@usmc.mil, 703-784-6541 APfM Logistics: Darin Simmons, darin.simmons@usmc.mil, 703-432-5171 PEO/PfM ISSM: Jeffrey Miller, Jeffrey.k.miller@usmc.mil, 703-784-6591</p> <p>Note: The Government Procuring Contracting Officer (PCO) does not require the formal delivery of the Cyber Incident Report, however a Letter of Transmittal should be sent to the PCO to document formal delivery notification. Send all copies of the report via encrypted email when feasible, otherwise deliver hard copy.</p>				COR		0	1	0
				PCO		0	0	1
				PEO/PfM ISSM		0	0	1
				APfM Logistics		0	0	1
15. TOTAL				0		1	3	
G. PREPARED BY Roger Asprer <small>ASPRER.ROGER.O.1278925001</small>		H. DATE 6/17/2020		I. APPROVED BY Stephen Magee <small>MAGEE.STEPHEN.JAMES.1049315259</small>		J. DATE 6/18/2020		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

A. CONTRACT LINE ITEM NO. 000X, 000Y, 000Z	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>
D. SYSTEM/ITEM MCB Quantico Modernization	E. CONTRACT/PR NO. M67854-20-C-XXXX	F. CONTRACTOR Technology Trends Group, LLC

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMS DL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)										Form Approved OMB No. 0704-0188							
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.																	
A. CONTRACT LINE ITEM NO.				B. EXHIBIT			C. CATEGORY: TDP _____ TM _____ OTHER _____										
D. SYSTEM/ITEM					E. CONTRACT/PR NO.				F. CONTRACTOR								
1. DATA ITEM NO.		2. TITLE OF DATA ITEM						3. SUBTITLE									
4. AUTHORITY (Data Acquisition Document No.)					5. CONTRACT REFERENCE				6. REQUIRING OFFICE								
7. DD 250 REQ		9. DIST STATEMENT REQUIRED		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION									
8. APP CODE				11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE		Draft		b. COPIES					
						Final											
										Reg		Repro					
16. REMARKS																	
														15. TOTAL			
G. PREPARED BY					H. DATE		I. APPROVED BY					J. DATE					

17. PRICE GROUP

18. ESTIMATED
TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____
D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR

16. REMARKS (Continued)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

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Item F. Self-explanatory (to be filled in after contract award).

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Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

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Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

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Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

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Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

DATA ITEM DESCRIPTION

Title: Contractor's Systems Security Plan and Associated Plans of Action to Implement NIST SP 800-171 on a Contractor's Internal Unclassified Information System

Number: DI-MGMT-82247

AMSC Number: 9992

DTIC Applicable: No

Preparing Activity: OSD-SO

Applicable Forms: None

Approval Date: 20181031

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2018-049

Use/relationship: This Data Item Description (DID) contains the data content, format, and intended use of the Contractor's system security plan (or extracts thereof), to include any associated plans of action, addressing the Contractor's internal unclassified information system(s). When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on an unclassified information system that is owned, or operated by or for, the Contractor, the Contractor shall develop, document, and periodically update a system security plan(s), to include any associated plans of action, for the Contractor's internal unclassified information system in accordance with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations. Security Requirement 3.12.4 of the NIST SP 800-171 requires that system security plans describe system boundaries, system environments of operation, how security requirements are implemented, and the relationships with or connections to other systems. Security Requirement 3.12.2 of the NIST SP 800-171 requires that plans of action describe how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's unclassified information system. The system security plan (or extracts thereof) and any associated plans of action may be used by the government as input to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or operated by or for, the Contractor (i.e., Contractor's internal unclassified information system). This DID contains the information that shall be conveyed within the system security plan and any associated plans of actions for the Contractor's internal unclassified information system. There is no prescribed format or specified level of detail for how that information is conveyed. There is no requirement for the government to approve the system security plan or any associated plans of action for the Contractor's internal unclassified information system, but the government may request that the Contractor submit the system security plan (or extracts thereof), and any associated plans of action, such that the government may review the Contractor's implementation of security requirements. When requested by the government, the submitted system security plan (or extracts thereof) and any associated plans of action for the Contractor's internal unclassified internal information system may: - Demonstrate to the government the Contractor's implementation or planned implementation of the security requirements for their internal unclassified information system, or

- Be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned, or

operated by or for, the Contractor (i.e., Contractor's internal unclassified information system).
Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including development dates and dates of any applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format acceptable.

3. Content: The system security plan (or extracts thereof) shall include a description of system boundaries, system environments of operation, how security requirements are implemented or how organizations plan to meet the requirements, and the relationships with or connections to other systems. Any associated plans of action shall include a description how the Contractor will correct deficiencies and reduce or eliminate vulnerabilities in the Contractor's information system.

3.1. Cover Page: The cover page of the system security plan (or extracts thereof) and any associated plans of action shall identify the following information:

3.1.1. Title of the document (i.e., Systems Security Plan and Associated Plans of Action for [Name of Contractor's Internal Unclassified Information System])

3.1.2. Company name

3.1.3. Data Universal Numbering Systems (DUNS) Number

3.1.4. Contract number(s) or other type of agreement

3.1.5. Facility Commercial and Government Entity (CAGE) code(s)

3.1.6. System that this System Security Plan and any associated Plans of Action addresses

3.1.7. Date of latest revision

3.1.8. All appropriate distribution and classification statements/markings

3.2. System Identification: The purpose of the system security plan shall be communicated in this section, to include a description of the function/purpose of the Contractor's internal unclassified information system(s)/network(s) that is (are) addressed in the plan.

3.3. System Environment: A detailed topology narrative and graphic shall be included that clearly depicts the Contractor's internal unclassified information system boundaries, system interconnections, and key components. This does not require depicting every device, but would include an instance of operating systems in use, virtual and physical servers (e.g., file, print, web, database, application), as well as any networked workstations, firewalls, routers, switches, copiers, printers, lab equipment, etc. If components of other systems that interconnect/interface with this system need to be shown on the diagram, denote the system boundaries by referencing the security plans or names and owners of the other system(s) in the diagram. Include or reference (e.g., to an inventory database or spreadsheet) a

complete hardware and software inventory, including make/model/version and maintenance responsibility.

3.4. Security Requirements: Describe how the Contractor addresses/will address security requirements in each of the following NIST SP 800-171 security requirement families (including basic and derived requirements) for protecting covered defense information in the Contractor's systems and organizations:

- 3.4.1. Access Control (3.1.1 – 3.1.x)
- 3.4.2. Awareness and Training (3.2.1 – 3.2.x)
- 3.4.3. Audit and Accountability (3.3.1 – 3.3.x)
- 3.4.4. Configuration Management (3.4.1 – 3.4.x)
- 3.4.5. Identification and Authentication (3.5.1 – 3.5.x)
- 3.4.6. Incident Response (3.6.1 – 3.6.x)
- 3.4.7. Maintenance (3.7.1 – 3.7.x)
- 3.4.8. Media Protection (3.8.1 – 3.8.x)
- 3.4.9. Personnel Security (3.9.1 – 3.9.x)
- 3.4.10. Physical Protection (3.10.1 – 3.10.x)
- 3.4.11. Risk Assessment (3.11.1 – 3.11.x)
- 3.4.12. Security Assessment (3.12.1 – 3.12.x)
- 3.4.13. System and Communications Protection (3.13.1 – 3.13.x)
- 3.4.14. System and Information Integrity (3.14.1 – 3.14.x)

3.5. Plans of Action: In accordance with Security Requirement 3.12.2, provide any plans of action developed to address how and when the Contractor will implement any security requirements not yet implemented, identify known deficiencies and vulnerabilities in the contractor's internal unclassified information system, how and when the Contractor will correct identified deficiencies and reduce or eliminate vulnerabilities in the Contractor's system.

End of DI-MGMT-82247

DATA ITEM DESCRIPTION**Title: Cyber Incident Reporting for a Contractor's Internal Unclassified Information System(s)****Number: DI-MGMT-XXXXX****AMSC Number: YYYY****DTIC Applicable: No****Preparing Activity: TBD****Applicable Forms: None****Approval Date: TBD****Limitation: TBD****GIDEP Applicable: No****Project Number: MGMT-XXXX-XXX**

Use/relationship: When DFARS Clause 252.204-7012 is included in a contract for which Controlled Unclassified Information (CUI) – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted during the course of executing the terms a Department of Defense (DoD) contract, cyber incidents shall be reported to the Defense Cyber Crime Center (DC3) via the DIBNet portal.

This Data Item Description (DID) contains the information that is required of the Contractor submitting the incident report to DC3.

This information, once reported, will be shared by DC3 as threat information between the DoD and DIB companies. When DC3 receives a DFARS cyber incident report, DC3 will send an unclassified encrypted email containing the submitted incident report to the government Contracting Officer point of contact identified in the submitted report to have the report placed in the contract file to document the action, with a courtesy copy to the following:

- Director, DC3/DCISE
- Director, OSD DAMO
- Director, DIB CS/IA Program Office
- Contract Program Management Office

Requirements:

1. Format: Use the format prescribed through the DIBNet Portal at <http://dibnet.dod.mil>.

- Under “DoD’s DIB Cybersecurity (CS) Program” on the right side of the page, select “Voluntary Report”.
- Since this is reporting is to satisfy a contractual requirement, select “Mandatory Incident Report”.
- Follow the “Mandatory Incident Report” wizard for the following:
 - General Information
 - I. Company Identification
 - II. Company POC Information
 - III. Contract or other Agreement
 - IV. Incident Information
 - V. Ancillary Information

End of DI-MGMT-XXXX

DATA ITEM DESCRIPTION

Title: CONTRACTOR'S RECORD OF TIER 1 LEVEL SUPPLIERS RECEIVING/ DEVELOPING COVERED DEFENSE INFORMATION

Number: DI-SCRE-82258

AMSC Number: 10008

DTIC Applicable: No

Preparing Activity: RS

Applicable Forms: None

Approval Date: 20190313

Limitation: DTIC

GIDEP Applicable: No

Project Number: MGMT-2019-010

Use/relationship: When Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.204-7012 is included in a contract for which covered defense information – as defined in DFARS Clause 252.204-7012 – will be processed, stored, or transmitted on a tier 1 level supplier's internal unclassified information system. (DFARS Clause 252.204- 7012 can be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252204.htm>)

a. This Data Item Description (DID) contains the information that is required of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information. This information will be used by the government as critical inputs to an overall risk management decision to process, store, or transmit covered defense information on an unclassified information system that is owned or operated by, or for, the contractor (i.e. contractor's internal unclassified information system). This information will:

(1) Demonstrate to the government the Contractor's ability to restrict the dissemination of covered defense information specified in, or developed under, the contract to subcontractors that execute requirements that involve the covered defense information.

(2) Demonstrate to the government the Contractor's ability to ensure that their tier 1 level suppliers safeguard covered defense information in accordance with DFARS Clause 252.204- 7012.

b. This DID contains the format, content, and intended use information for the data deliverable resulting from the work task described in the contract.

Requirements:

1. Reference Documents: The applicable issue of the documents cited herein, including approval dates and dates of applicable amendments, notices and revisions, shall be specified in the contract.

2. Format: Contractor's format is acceptable.

3. Content: The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information must include a description of how the Contractor will identify and restrict the dissemination of covered defense information to subcontractors who require the covered defense information to execute the requirements in their contract and how the Contractor will ensure that their tier 1 level suppliers safeguard covered defense information with the requirements of DFARS Clause 252.204-7012. The Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include the following:

3.1. Cover Page: The cover page of the Contractor's Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information shall include:

DI-SCRE-82258

- a. Title of the document (i.e., [Name of Contractor] Record of Tier 1 Level Suppliers Receiving/Developing Covered Defense Information
- b. Contractor's Data Universal Numbering Systems (DUNS) and Commercial and Government Entity (CAGE) code numbers
- c. Contract number(s) or other type of agreement (if available)

3.2. Tier 1 Level Supplier Information (for each Tier 1 Level Supplier receiving/developing covered defense information associated with this contract)

- a. Supplier Name
- b. Supplier contract and/or agreement number (if available)
- c. Supplier Point of Contact: name, email, and phone number
- d. Date the Tier 1 Level Supplier sub contract was put in place
- e. Number of sub contracts with Tier 1 Level Supplier
- f. Supplier contract and/or agreement contains or will contain substance of DFARS Clause 252.204-7012 Y/N
- g. Supplier contract and/or agreement contains or will contain cyber security measures and/or requirements other than those identified in DFARS Clause 252.204-7012 and National Institute of Standards and Technology (NIST) Special Publication (SP) 800- 171 Rev 1: Y/N (NIST SP 800-171 can be found at <https://csrc.nist.gov/publications/detail/sp/800-171/rev-1/final>
- h. Contractor's DUNS and CAGE numbers:

- i. Supplier has conducted or will conduct a self-assessment in accordance with NIST SP 800-171A:Y/N (NIST SP 800-171A can be found at <https://csrc.nist.gov/publications/detail/sp/800-171a/final>)
- j. Supplier System Security Plan and Associated Plans of Action in accordance with NIST SP 800-171 Rev 1 Security Requirement 3.12.4 and 3.12.2
- k. List of Supplier's Tier 1 Level Suppliers receiving and/or developing covered defense information

END OF DI-SCRE-82258



U.S. Small Business
Administration

DCbusdev8a@sba.gov | 202-205-8800 | www.sba.gov/dc
Washington Metropolitan Area District Office (WMADO) | 409 3rd St SW, Floor 2 | Washington, DC 20416

February 7, 2022

Jeffrey A. Sisk Jr.
Contract Specialist
Marine Corps Systems Command Bldg. 2208
Quantico, Virginia 22134

RE: Modification to Contract number: M67854-20-C-4919, Technology Trends Group LLC, DUNS number 019805824 WMADO REQUIREMENT: 0353/20/0874

Dear Jeffrey A. Sisk Jr.,

This is to respond to your request to modify Contract Number M67854-20-C-4919. The following determination has been made.

1. ☒ The proposed modification may be executed pursuant to 13 CFR 124.514(d) "Modification Within the Scope." "This increase in the amount of \$6,500,000.00 increasing from \$24,000,000.00 to \$30,500,000.00 is on a one-time-basis. In accordance with provisions contained within the contract, this is considered a modification within the scope which can be exercised by the Procurement Contracting Officer.
2. ☒ The proposed modification may be executed pursuant to 13 CFR 124.514 "Modification Beyond the Scope." The modification is to extend the Period of Performance (POP) from 30 September 2020 – 28 February 2022 to 28 February 2022 – 30 September 2022
3. ☐ The proposed modification may be executed pursuant to 13 CFR 124.514 (3) (c) "Modification Beyond the Scope." It is suggested that, if your agency has a continuing need to increase these services under this contract, that you consider procuring these services under the SBA 8(a) competitive arena as a new contract. There will be no further increases authorized under this contract.
4. ☐ The proposed modification contract cannot be executed. The modification has been determined to be beyond the original scope of the contract pursuant to 13 CFR 124.514 "Modification

Beyond the Scope." The firm is ineligible to receive increases in accordance with 13 CFR 124.514(a)(3c). (A modification beyond the scope of the initial 8(a) contract award is considered to be a new contracting action. It will be treated the same as an unpriced option).

5.____ Other (s) You are authorized to bridge the contract on a one-time-basis, with a not to exceed a 6 month period. This provision is granted to allow your agency to prepare for the re-procurement of this requirement. (FAR 16.191(b) and 13. CFR 124.514(b))

Further inquiries may be directed to the Business Development Team, at (202) 205-8800.

Thank you,

Supervisory Business Opportunity Specialist
8(a) Business Development Program



All SBA programs and services are extended to the public on a nondiscriminatory basis.